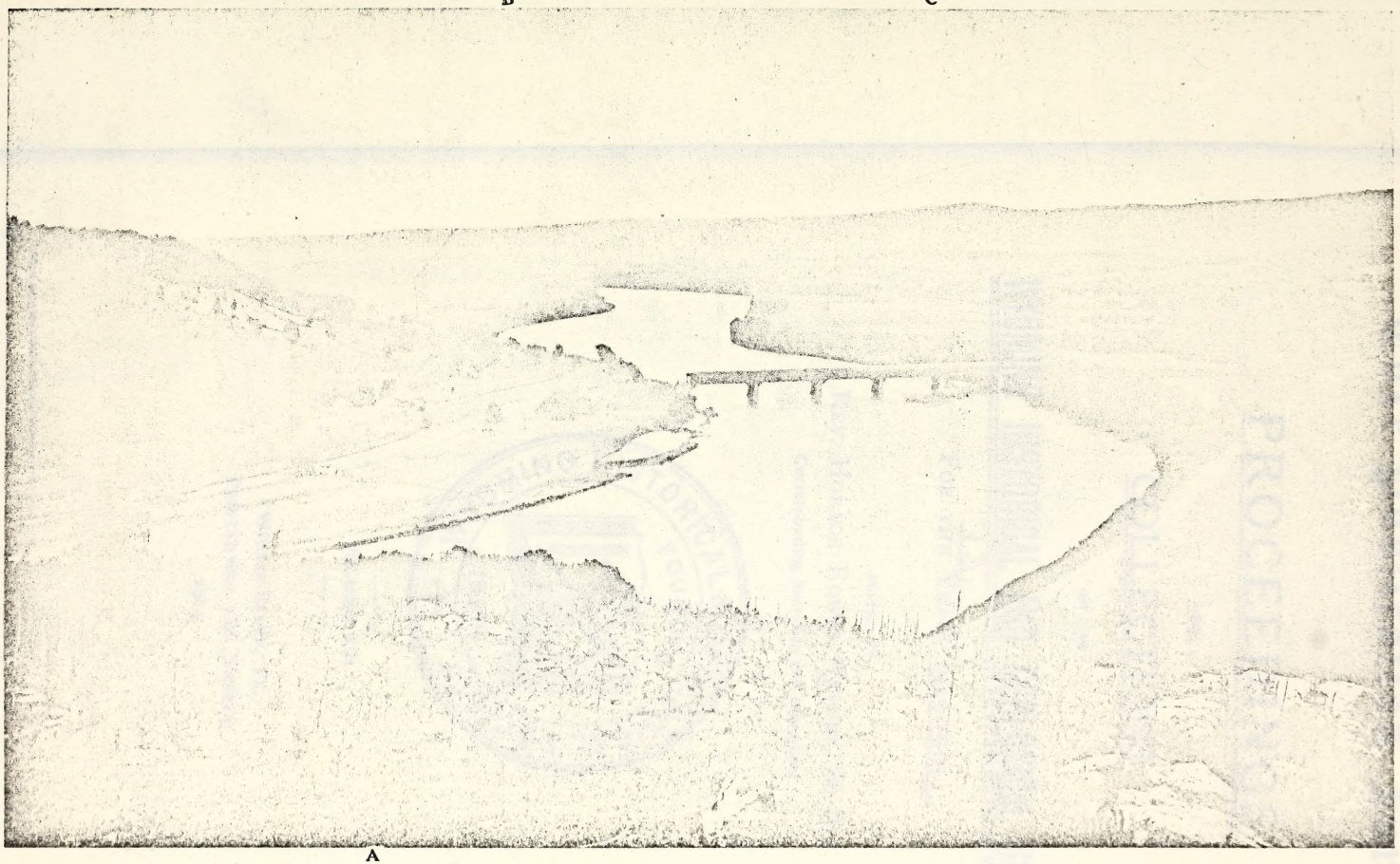
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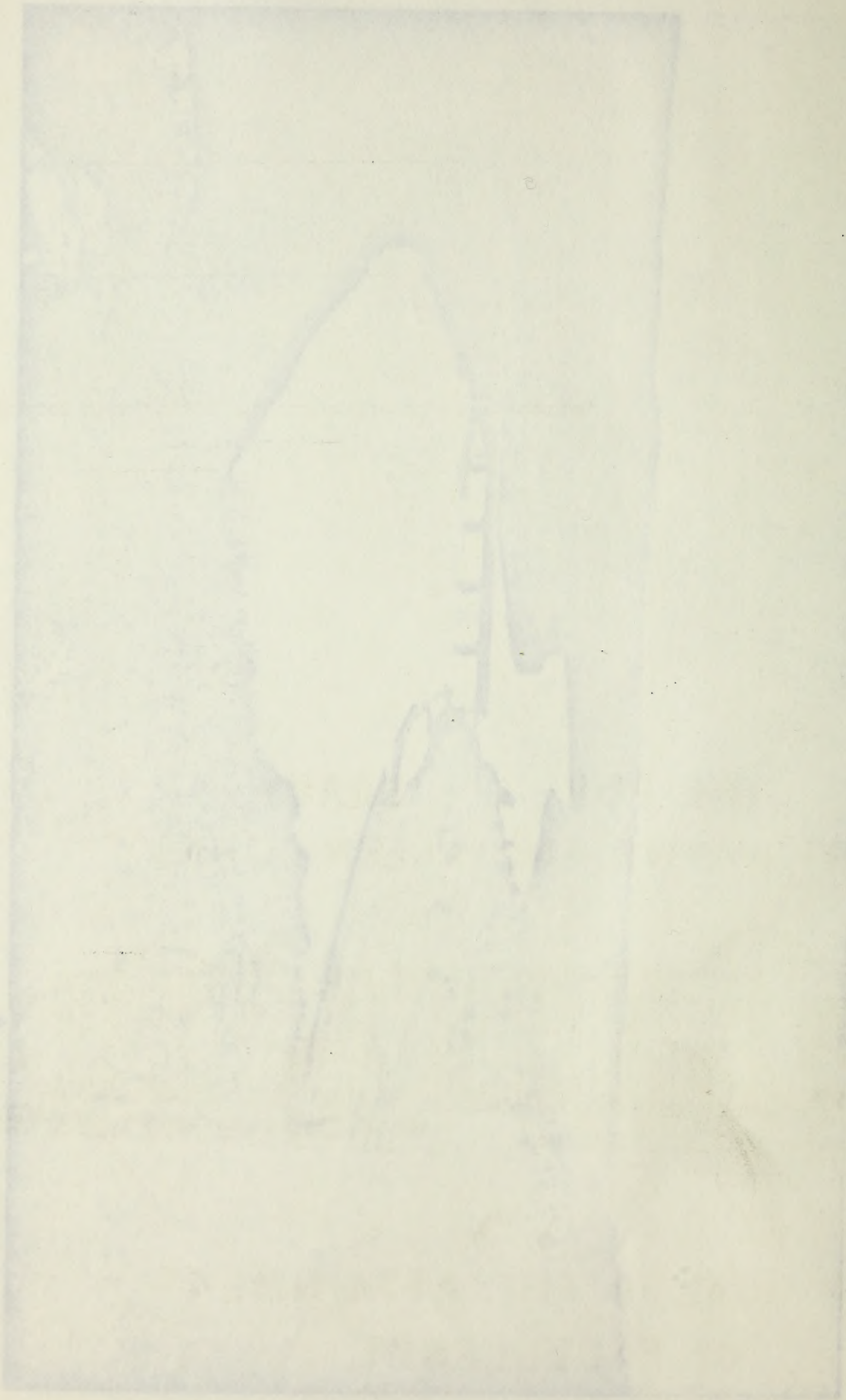
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REYNOLDS HISTORICAL
GENEALOGY COLLECTION

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Looking up the Susquehanna river from the west end of Wyoming Valley, Pa.: (a) West Nanticoke; (b) Shawnee Flats; (c) Nanticoke Flats. The bluff directly back of West Nanticoke, was connected with the hill from which this picture was taken, before the river found its passage out of the valley on the extreme left. See description, page 146. (From History of Wilkes-Barre and Wyoming Valley, by courtesy of the author, Oscar J. Harvey, Esq.)



Coxe Publication Fund.

PROCEEDINGS

AND

COLLECTIONS

OF THE

WYOMING HISTORICAL AND GEOLOGICAL SOCIETY,

13

FOR THE YEARS 1913-1914.

EDITED BY

REV. HORACE EDWIN HAYDEN, M. A.,

Corresponding Secretary and Librarian.



VOLUME XIII

WILKES-BARRÉ, PA.
PRINTED FOR THE SOCIETY.
1914.

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PREFACE.

The Publishing Committee in sending forth the present volume to the members owe them an apology for omitting from it the continuation of the most interesting Records of St. Stephen's Church, Wilkes-Barre, which cover the marriages and deaths from 1811 to 1850, and also for discontinuing for the time the Westmoreland Records begun in volume XII. It was found impossible to crowd into the limited space allowed for the volume what could be postponed to a later date? They will appear in the next volume.

The importance of Mr. Wren's admirable paper on the Appalachian Indian Pottery will be apparent to all who read it as justifying the Committee in deferring the local subjects to the next "Proceedings". It is not thought wise to increase the size of the annual volume, which has rarely been much over 250 pages, or to omit the valuable illustrations which enrich this volume. These beautiful plates, while they add greatly to the expense, will place the Society where it belongs in the world of Archæology as progressive and as a valuable factor in American history.

The death of our honoured Historiographer, Dr. Frederick C. Johnson, has made it difficult to present the biographical sketches of deceased members at this time, except of the two officers who passed away last year. Oscar Jewell Harvey, Esq., the present recognized Historian of Wyoming, has accepted the office of Historiographer and will certainly make up for the omissions of the present in future volumes.

But owing to the number of deaths which have occurred in the membership since volume XII was issued these memorial sketches will necessarily be briefer than usual.

Dr. Frederick C. Johnson's "Historical Record of Wyoming Valley" is not continued so that the many articles of local historical interest published in the daily papers are virtually lost to students. If members of this Society who contribute such data to the papers would send it instead to this Society the matter would appear in time in these annual volumes where it would be perpetuated and the Society profited.

The April meeting of the Society will be marked by an unusual paper, viz.: The Memorial of the Hon. Charles Miner from the pen of Charles Francis Richardson, Ph. D., which will be the special article of volume XIV.

Rev. Horace Edwin Hayden,
Miss Myra Poland,
George Frederick Coddington,
Publishing Committee.

THE WYOMING HISTORICAL AND GEOLOGICAL SOCIETY,

WILKES-BARRE, PENNSYLVANIA,

Organized 1858,

Has a handsome and permanent home provided by the will of the late Isaac S. Osterhout, founder of the Osterhout Free Library.

A library of 20,000 books and pamphlets not duplicated in the Osterhout Free Library, including all Pennsylvania and United States Publications.

Collections of 45,000 Archæological, Geological and Ethnological objects.

A Life Membership of 210, the fee for which ($100) is invested.

A Resident Membership of nearly 200, annual dues, $5.00.

Rooms open to the public daily, except Sunday, from 10 A. M. to 5 P. M.

Members receive all privileges free, also all publications of the Society.

The Society has published thirteen volumes and twenty-five pamphlets.

The Geological Library has over 2,000 volumes with all State reports.

The Society solicits donations of Indian relics, local especially, geological specimens and local antiquities.

Address,

Wyoming Historical and Geological Society,
Wilkes-Barre, Pa.

FORM OF A BEQUEST.

I give and bequeath to the "WYOMING HISTORICAL AND GEOLOGICAL SOCIETY," the sum of (*here state the sum to be given*), for the use of said Society absolutely.

FORM OF A DEVISE.

I give and bequeath (*here describe the real estate to be given*), unto the "WYOMING HISTORICAL AND GEOLOGICAL SOCIETY," its successors and assigns forever.

Johnson's Historical Record of Wyoming Valley. 14 volumes, full of family and local history, $15.00; reduced from $21.00. No longer printed. Single volumes, $1.50. Proceeds to create the "Rev. Jacob Johnson Fund," 1770-1792.

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OF THE
Wyoming Historical and Geological Society.

Volume XIII. WILKES-BARRÉ, PA. 1912.

REPORTS.

Report of the Corresponding Secretary and Librarian for the Year ending February, 1912.

To the President and Members of the Wyoming Historical and Geological Society.

Gentlemen: We close to-night another year, the fifty-third, of our history with gratifying success, although much remains to be done to place our Society on an independent basis to meet the demands of a population that is annually increasing rapidly. We must remember that this is not a county or a local Society limited in its work and the claims that come to it. But a Society that virtually covers the entire Northeastern part of this great Commonwealth. Our borders enclose the three large counties of Luzerne, Wyoming and Lackawanna, or as our By-Laws say, "the original limits of Luzerne county," that is Luzerne county as she was in 1858.

The Northeastern part of the State has other similar societies which are struggling for existence, viz.: the Tioga Point Society, the Tioga County Society, the Susquehanna County Society, the Bradford County Society, and the Great Bend Society. Of these the Tioga county, and the Bradford county societies alone have published any literature, the first two volumes, and the other one volume. The literature of a Society is the only guarantee that it has life. Societies die when their literature ceases.

But when we realize that the literature of our own Society was spasmodically issued until 1899 (the first three volumes covering twenty-eight years, from its first pamphlet in 1858 to volume three in 1886), we can entertain some

hope that these smaller and younger Societies will some day make as good a record. Since 1858 this Society has issued eleven volumes, and the twelfth is nearly through the press. It has also issued about twenty-five pamphlet titles and thirty reprints, making a bibliography of nearly seventy titles.

These are to be found in many large public libraries and in all representative Historical Society Libraries, so that the reputation of the Society away from home is such that if we had the same reputation, or were equally valued at home our treasury would be full and our membership double what it is. The time is not far distant when young and old in this section of the State will be ashamed to say that they are not members of an educational institution that has done, and is doing so much to preserve their local and family history.

The Society grows until it has become a recognized fact that some better and larger distribution of duties among its members *must be made* to satisfy the demands of the public in this section, and so keep the Society up to the standard it has already reached. To set this forth clearly and successfully will require much repetition which some members may criticise, but repetition is most effective when the object sought is a necessity. Three times in three separate Reports the Librarian asked for money to meet one great need in the Society, but it was the third request which was seen and responded to most promptly by a generous member.

It cannot be too strongly put before the members or too often repeated that the two large public libraries, the "Osterhout" of this city, and the "Albright" of Scranton, do not propose to supply the historical and scientific students of this section with the literature which appertains to the special departments of study covered by this Society, *i. e.*, Geology, and that portion of American History included in Archeology, Ethnology, and local history, and especially Genealogy. The number who still apply to the splendidly equipped Free libraries just named for these branches of knowledge without knowing that they are to be found only in this Society's library is very surprising. Almost as great as the number of residents of Wilkes-Barré and parts adjacent who to this day do not know of the location of this Society or its existence.

Now a brief resumé of the work of the Society for the

past forty years will not only interest the reader and recall the success of the past, but will also make clear the various changes that have taken place in the Society for its advancement. Those who are familiar with that work will remember the calling of a meeting by its President, Judge John N. Conyngham, in 1870, as the call stated, "either to infuse new life into the organization or to give it a decent burial". The following year that eminent Judge was removed from us by death.

Three men came to the front in the next two years to whom this Society owes a debt that can never be paid. Dr. Charles F. Ingham, the associate of Colonel Alexander H. Bowman, U. S. A., in the building of Fort Sumter in the harbor of Charleston, South Carolina, a man of great versatility, skilled as a civil engineer, a Geologist, a Conchologist, and a physician; then Dr. Harrison Wright fresh from scientific studies at Heidelberg, Germany, equally as versatile as Dr. Ingham, illuminating every subject he touched; and Sheldon Reynolds, Esq., also of scientific tastes, just from Yale College and possessed of unusual executive ability. This trio, one physician and two lawyers, with time, enthusiasm, means, and skill infused new vigor into the Society, and gave it a character abroad which it holds undisputed to the present day. Do you wonder that their successor in his endeavor to carry out their plans to advancement finds himself handicapped in working out *alone* the problems they had begun?

Harrison Wright, Ph. D., died in 1885; Dr. Charles F. Ingham in 1890, and Sheldon Reynolds in 1895.

In 1882 the population of Wilkes-Barré was only about 25,000, and many business and legal minds thought the city had reached its limit for all time. I heard then a leading business man of large interests advise against paying $2,000 for a valuable property on the grounds that property would never advance in Wilkes-Barré beyond its then present value. The same piece of property cannot be had now for $10,000.

It was in 1882 that these three important factors in the life of this Society secured a revision of our By-Laws to meet the conditions they had created, but it was not with a full vision for the future as they would take to-day.

Then the departments of the Society were six in number, *i e.*, Archeology, Geology, Conchology, Numismatics, Paleontology and Meteorology.

The meetings were held in February, May, September and December, the annual meeting always being held as per By-Laws at *eleven o'clock in the morning.* All other meetings were held at night, as now.

At that time a meeting at 11 a. m. was quite feasable and the attendance good, but as the city grew in population and business enterprise that hour was simply impossible.

Then when the new building, which we now occupy, was opened it was found impossible to accommodate the fine collection of shells, which our Conchologist had classified according to the system of the British Museum, and which made quite a feature of the Museum in the old Miner's Bank building, and after a time that By-Law was amended so as to eliminate the Conchology.

About the same time the failing health of the Meteorologist, Rev. Dr. F. B. Hodge, made it necessary for him to give up his work on that subject, and as no one was available to supply his place that department was also eliminated.

Then the departments of the Society were confined to Geology, Numismatics, Archeology (which includes History and Ethnology) and Paleontology, four in number. This last subject was then divided by the reason of the fine gifts of that eminent scientist, Mr. Ralph D. Lacoe, who for fifteen years had been the Curator of Paleontology to the Society.

Shortly before his death, Mr. Lacoe in 1895 presented to the Society, and had placed in the Paleontology room, his three large cabinets of 300 drawers, which he filled with the most valuable part of our collection of coal flora enriched also by his own additions, 3,000 specimens in all.

In 1898 at Mr. Hayden's earnest solicitation, Mr. Lacoe presented to the Society 4,000 fine specimens of Paleozoic fossils classified and labelled. These the Corresponding Secretary and Mr. Joshua L. Welter packed, removed and assorted in the case now in the Lacoe room.

In 1901 Mr. Lacoe died, and Mr. Christian H. Scharar, our member in Scranton, added to the Paleozoic collections his rare cabinet of nearly 1,000 Paleozoic fossils from the Carboniferous Limestone beds at Mill Creek, beds now covered by culm. Mr. Welter was elected Curator but finding the two collections of Paleontology too much for one Curator, the department was divided into Paleozoology, of which he was elected Curator, and Paleobotany, of which at this

time (1912) Professor William E. Traxler of Wyoming Seminary is Curator.

The reports of the Curator of Paleontology, Mr. Welter, were long delayed because his work was simply arranging and re-arranging specimens, there being no funds for adding to the collections until the Librarian had completed, a year ago, the Lacoe Fund of $1,000 for the purpose. Since then the income of the Fund has been temporarily sidetracked by the Trustees to meet other and more pressing needs. During the next year that income will be returned and used for the cabinet of Paleozoology.

Mr. David White, of the National Museum, Curator of the Lacoe Collection of Paleobotany, has promised to read a paper on the specimens in our department some future day.

The collection of Conchology belonging to the Society is now for sale. It has been for the past fifteen years carefully packed away in special wrappers and is ready for a purchaser.

The Conchological Collections are published in Volume 2, of the proceedings, pp. 163-171, 1886; The Lacoe Collection of Paleozoology in Volume 5, pp. 177-204, 1890. The collection of Paleobotany, re-classified by Mr. David White of Washington, will be published later, and the collection of Minerals has been fully catalogued by the Curator, Mr. Ricketts, for publication.

All these changes have made amendments to the By-Laws necessary, especially the times of holding the meetings of the Society. Because the hegira of Wilkes-Barré residents to summer resorts begins in May, and the return does not begin before October. Thus the annual meeting is now held February 11, at 8 o'clock p. m., and the quarterly meetings occur in April, October and December.

All these changes affected the carrying out of the By-Laws requiring the Cabinet Committee to make an annual report of each department in separate reports. But it was as difficult to fill the office of Curator as it was to secure reports from those who held the office.

The last report made by the Corresponding Secretary, Sheldon Reynolds, was read at the annual meeting, February 11, 1894, covering three-fourths of a page in Volume 4 and is signed by him as "Corresponding Secretary". *No report* for that year from any *other member* of the *Cabinet Committee exists.* Mr. Reynolds was elected President at that meeting, and his health failed during the year (1894).

When his successor, the present Corresponding Secretary, endeavored to secure an annual report from the Curators in 1895 it was found an *impossible* thing, therefore he followed in the footsteps of his predecessor; Mr. Lacoe, advanced in years, was too busy preparing his large collection to be donated to the Smithsonian Institution, and his smaller collection to this Society, to make a separate report for this Society.

The Curator of Numismatics, 1884-1912, Rev. Mr. Hayden, was Corresponding Secretary, 1894-1912. Mr. Hayden was also from 1894 to 1898 the *Acting* Curator of Geology when Mr. Ricketts was elected, whose work for the next ten years and more was the tedious classifying and cataloguing of the 3,000 minerals in the cabinet. Mr. Hayden was also for ten years, from 1895 until the election of Mr. Christopher Wren, the *Acting* Curator of Archeology, securing in that time the Griffith Collection of 1,000 Ethnological relics; the Berlin Collection of 2,500 pieces; the Sutton Collection; the Stearns Collection, and the Zebulon Butler Collection; all making the Society a fit place in which to deposit that splendid collection, the gift of Mr. Christopher Wren, of over 10,000 pieces. Mr. Hayden was from 1896 to 1907 Assistant Treasurer.

He was also from 1903 to 1911 the *Acting* Curator of Paleobotany and from 1894 to 1900 the *Acting* Librarian of the Society. The last separate report of then Librarian was made by him in 1894 for his predecessor.

So that until the present Curator of Ethnology, Mr. Wren, was elected, no separate report of any Curator was presented, the brief word "Progress" being included in the annual Report of the "Corresponding Secretary and Librarian" to show that the various departments of the Society were not dying for want of attention.

Thirty years ago the commercial spirit had not taken possession of Wilkes-Barré, and frequently Dr. Wright and Mr. Reynolds would gather in the rooms at night as many as six or eight young lawyers or business members who would, without thought of compensation, spend three or four hours at work on the books and specimens.

But this is the day when every hour of work has its money value. Hence the suggestion here thrown out for serious consideration that the Society re-arrange the departments of its work and eliminate Numismatics, the Curator of

which is the Librarian. The funds of the Society have not been sufficient for many years to purchase specimens for that collection. It is kept locked up in the safe and can more advantageously be sold and the money added to the General Fund, thus adding greatly to the efficiency of the Society.

Then the Society could in time arrange to secure enough money to pay to the various Curators of Geology, Archeology, Paleobotany and Paleozoology, to which departments the cabinets of the Society would be limited, the annual sum of fifty dollars each on rendering his annual report of work done.

These Curators are all busy men and the tax on their time is no small matter to them and is worthy of our consideration.

This resumé, Mr. President, is set before the Society to impress on its members the *absolute necessity of doing something to relieve the one officer* who for the past fifteen years has filled to a large degree *every office from President to Janitor.*

Therefore at the last annual meeting a proposed amendment to the By-Laws of the Society was presented, and it was unanimously

"Resolved, That a Committee of Ways and Means be appointed by the President consisting of five members, with the President, to consider methods of carrying on more effectively the interests of the Society by a larger distribution of labour."

On this Committee the President appointed Messrs. Henry H. Ashley, Christopher Wren, Sidney R. Miner, Rev. Horace E. Hayden, and Andrew Hunlock.

This Committee met December, 1911, and unanimously recommended an amendment to Article 17 of the By-Laws, which provides for the annual appointment by the President of the Publishing Committee. The amendment provides that: "The President shall also appoint annually four other Committees to consist of Five or more members each, viz.: 1. A Committee on Increase of Membership. 2. A Committee on Papers and Essays. 3. A Committee to assist the Historian. 4. A Committee on Entertainments." Also the following amendment to the "Order of Business", adding after the word "Addresses" the words "Remarks or Discussions".

These amendments were regularly presented to the Quarterly Meeting, December 8, according to the By-Laws and were unanimously adopted and referred to the present Annual meeting for final adoption.

It is very important to the continued growth of the Society that these Committees be appointed and that they should consist of members who really have the interest of the Society at heart and the public spirit to accept and perform the duties imposed.

All large Societies realize the need of Committees for this purpose. The one Society the system of which the Corresponding Secretary finds most successful is the large and wealthy New England Historical-Genealogical Society of Boston, Mass. With a membership of over 1,000, it has thirteen Committees actively engaged.

The Committee on Increase of Membership is a standing committee in most large Historical Societies of importance, and is intended to overcome the loss of annual members by death or resignation.

It may interest you to know that while the present membership of this Society is about 386, Life and Annual, the Corresponding Secretary has added fully *four hundred* annual members during the past fifteen years, and *one hundred* and *ninety Life* Members.

There is only one member of the Society at present who was an original 1858 member, and only twenty-six who were members when the present Librarian first entered upon his duties in 1895.

As the membership has been increased largely by only *one* person, it is believed that if a Committee of five or more will undertake to increase the present number it will be found a very simple matter. The purpose is not to have the Committee canvass the Valley or section for members, but that each member of the Committee may use his privilege to persuade his friends to unite with the Society. It must be remembered that all memberships are to be approved by the Trustees.

The Committee on "Papers and Essays" is intended to relieve the Corresponding Secretary of what is not really a part of his duty, securing proper persons in the literary, historical and scientific world to accept an invitation from the Society to read papers or make addresses on these lines of

research before the Society, and arrange for their entertainment.

The Corresponding Secretary has *given* the Hayden Geological Lecture Fund, and has secured the Laning, and Woodward History Funds, to provide a just sum for compensating those who accept the Society's invitation.

This system supplies the Publishing Committee with papers for the annual volume. It interests the public in the Society, and it gives the Society a character for work without which the institution may as well die.

The Committee to assist the Historian will be one to advise the Historian of the death of members and to assist in securing material for memorials. It may be thought better to take such notices as the daily papers furnish, but these are always *ad captandum* sketches prepared on the moment, and an historical Society cannot afford to reprint instantaneous memorials in its volumes.

Owing to the long continued illness of our honoured Historiographer, Dr. F. C. Johnson, who has so faithfully served the Society in various offices, the Corresponding Secretary has been the *Acting* Historiographer for more than ten years.

Since 1894 seventy-five papers and addresses have been delivered before the Society, all of which were secured by the Corresponding Secretary.

The Entertainment Committee is supposed to arrange for one social meeting during the spring or fall for members and their families. This method of arousing interest in the Society has been a marked feature with great success in other and larger Societies. The Historical Society of Pennsylvania finds it a great feeder of membership and has 1,000 subscribers at $5.00 each to the four annual social meetings on its list. But this Society will probably not adopt the subscription system to any extent. The four Committees, however will consider their various duties carefully before determining methods.

During the past year the Society has held four meetings. This number is required by the By-Laws, and also by the law which authorizes the County Commissioners to pay to this Society for its current expenses the sum of two hundred dollars annually, otherwise this payment is nullified.

The Annual Meeting of February 11, 1911, was held for the reading of the several reports of officers, the election of officers, and members, and for addresses.

The Corresponding Secretary read a paper on "Echoes of the Massacre of Wyoming" or "Revolutionary Pensioners from Wyoming Valley," including the affidavits of Mrs. Colonel Zebulon Butler, Seth Marvin, Joseph Elliott and William Hibbard. These affidavits have never before been read or published and they throw much new light on the events of the Revolutionary War, revealing also the names of four veterans who figured in the Wyoming Massacre and yet whose names are not inscribed on the Wyoming Monument. These papers will be published in the next annual volume of the Society.

The second meeting, the first quarterly, was held April 28, when the resolutions referred to above were proposed and the Committee of Ways and Means was appointed. At this meeting Professor Joseph Barrell, Ph. D., Professor of Structural Geology in Yale University, delivered an illustrated address on "Central Connecticut in the Geologic Past". This address was also referred to the Publishing Committee and was a marked feature of Volume XII.

The third meeting was held November 10th, when Professor John L. Stewart, Ph. D., Professor of Economics and History in Lehigh University, made an unwritten address before the Society on "Modern Views of the Federal Constitution"; a new and most interesting presentation of an old subject. This was referred to the Publishing Committee and will be one of the Historical papers of Volume XIII.

The fourth meeting of the year was the quarterly meeting of December 8th, to hear and act upon the report of the Committee of Ways and Means. This report was unanimously adopted and referred to the present annual meeting for final action. At these four meetings the following members were elected:

HONOURARY.

Professor Joseph Barrell, Ph. D., New Haven, Conn.
*Mrs. Andrew Jackson Griffith.

LIFE.

George H. Catlin, Scranton, Pa.
*Ralph Nesbitt, Easton, Pa.
Miss Fredrica Nesbitt, Kingston, Pa.
Abram Nesbitt Smythe, Kingston, Pa.
Samuel Nesbitt Smythe, Kingston, Pa.
*Nathan Beach Crary, Shickshinny, Pa.

ANNUAL.

George D. Johnson, Pittston, Pa.
Mrs. William L. Connell, Scranton, Pa.
Mrs. Thomas J. Foster, Scranton, Pa.
Andrew Todd McClintock, Wilkes-Barré, Pa.
Gilbert Stuart McClintock, Wilkes-Barré, Pa

During the past year the following members have passed away into the fuller light:

LIFE.

*Francis Alexander Phelps.

ANNUAL.

*James Henry Fisher.
*Mrs. Annette Jenkins Gorman.
*Thomas Graeme.
*Elliott P. Kisner.
*Enoch Wright Marple.
*Edward Franklin Payne.
*Dr. Charles William Spayd.
*Mrs. Lydia Atherton Stites.
*William Mercer Shoemaker.
*Edward Warren Sturdevant.

The funds of the Society now amount to over $50,700, as per the Treasurer's Report, and when all pledges are paid the amount will be $53,000. And yet that is not sufficient to meet every need. The Society had fully five hundred unbound volumes on hand until it received the gift from Mr. Andrew Hunlock of the "Hunlock Binding Fund", by which during the past two years one hundred and twenty-five volumes of Historical and Genealogical magazines have been bound and thus placed at the use of the students. This Fund will in time meet all this *special* demand of Historical and Genealogical magazines, but not of Exchanges or of Geological publications.

But is it not time, after fifty-three years of life, and the issue of eleven annual volumes of Proceedings, that this Society should issue its annual volume for its members *bound in cloth?* Every Society of the kind with any reputation binds its annual volumes. With us the accumulation

of unbound volumes will continue so long as we issue our volume unbound, as all the Historical Societies with which we exchange make their exchanges correspond with ours, hence we receive unbound volumes for unbound volumes, all of which must be bound in time.

The Coxe Publication Fund when complete will meet all expenses of publication for years to come in the publication of the annual volume, and to bind these, 400 in number, the general issue to members, exchanges and sale to Libraries, a Fund of $3,000 will be needed, or an annual cost of $150. This sum, however, can be secured by the addition of thirty annual members to the Society, thus covering the loss by death of the past three or four years. The issue of the Proceedings has been 600 copies ever since Volume II was printed. Only 500 copies of Volume XII will be issued.

At five dollars a year for dues, is it doing too much to supply our members with bound copies of the book at a cost to the Society of only 40 cents? The "Andrew Hunlock Binding Fund" will be a permanent Fund for our unbound increase of magazines, each volume bearing the name of the Fund. But the annual issue of our Proceedings will not bear any name but the "Coxe Publication Fund", and the expense of binding these volumes should be borne by our general funds, just as we pay for binding our newspapers.

During the year the Society has received a number of gifts worthy of special mention, viz.:

One pair of silver ear rings belonging to Frances Slocum, presented by her grand niece, Miss Alice G. Fisher.

One crayon portrait of Martin Coryell, deceased, President of the Society in 1868, and from 1866-1869 and 1870-1875 Corresponding Secretary, presented by his daughter, Mrs. L. C. Ayres, Bound Brook, New Jersey.

One life size portrait of Mr. George S. Bennett, presented by Mrs. George S. Bennett.

One drawing, in color, of the Wyoming Valley, now North Wilkes-Barré, in 1850, presented by P. J. Steinhauer,

One lot of the books of the Susquehanna Bridge Company, estate of Mr. George S. Bennett.

Thirty-eight volumes, including Knight's English Cyclopedia, by F. M. Bouton; nine volumes of History presented by the Lewis Publishing Company, New York, including the Colonial Families of Philadelphia, two volumes; Colonial and Revolutionary Families of Pennsylvania, three volumes;

Genealogical and Family History of Connecticut, four volumes. These make twenty-five volumes of Genealogical History presented by this publishing firm and are a valuable addition to our library.

One volume of the Carey Family Genealogy given by Mrs. W. DeW. Kennedy, also one volume of the Ingalls Family Genealogy.

One volume of the Noyes-Gilman Ancestry given by Mr. Charles P. Noyes. Twenty-five miscellaneous volumes presented by Dr. F. C. Johnson, including the History of Weare, N. H., 1735-1888, and Drake's Researches for Founders of New England, with 150 other volumes of duplicates.

From T. R. Hillard, Life of Thurlow Weed, two volumes; Life of Lincoln by Raymond; Albach's Annals of the West.

From Mr. Samuel Small, Jr., of York, Pa., the History of the Small and kindred Families.

Other gifts and additions of value to this Society, though lightly estimated by the possessors, are these:

Nelson's British Library, containing the only re-print ever made of Todd's "Lost Sister of Wyoming" (Francis Slocum), 1847, the gift of Dr. F. C. Johnson, one volume.

Broadside, calling the citizens of Wilkes-Barré to assemble at the Court House, March 24, 1855, to consider the buying or removal of the Old Ship Zion from the Public Square.

Broadside, the gift of George Bedford, Esq., August 13, 1844, calling a meeting of the Democracy of Luzerne County to adopt measures for nominating a successor to Hon. H. A. Muhlenberg, deceased, the Democratic candidate for Governor, signed by thirty of Wilkes-Barré's prominent men, such as Hons. H. B. Wright, E. L. Dana, Warren J. Woodward, A. T. McClintock, Charles R. Buckalew.

Also from Dr. Johnson, Dr. William Hooker Smith's manuscript of his work, entitled "Misteria Magna or the Secrets of Nature and Alchemy Explained and Made Familiar in the Mineral Kingdom and Transmutation of Metals."

Such ephemera as these are valuable historical matter and should be preserved when found in old garrets or elsewhere. The finders can do this Society a great favor by sending

them in. Before the local newspapers became dailies it was impossible to reach the public quickly except by Broadsides.

In addition to the above the Society has acquired a partial file, sixty numbers, of a newspaper called "The Advertiser", an octavo sheet published here in 1814, at the same time with "The Visitor", and kept all these years in the family of Mr. Jonas Ingham of this city, later of Newark, N. J. The Society paid twenty-five dollars for the file, as it completes the list of local newspapers published here since 1795, except the "Anti-Masonic Advocate".

The Librarian was so fortunate as to secure last summer a second copy of a very rare pamphlet published in Wilkes-Barré in 1820, viz.: "The Life and Revolutionary Experiences of Benjamin Smith", who spent his last days in Exeter Township, a property holder and church member. This work is so rare that no public libraries in cities of the East have a copy and the Publishing Committee had already prepared to re-print the incomplete copy in the possession of the Society in Volume XII.

It was thought when this pamphlet was secured this Society had a copy of every title issued in the Valley prior to 1850. But among the old papers recovered from the estate of the late Charles Edward Butler were over a hundred sheets of a book published by Steuben Butler in 1814 at Wilkes-Barré, entitled

"Christian/ Hymns/ Some composed—some improved—but/ chiefly collected from various/ authors/ By Samuel Crooker/ Minister of Christ/ For the use of all who desire to praise God/ Favoring no party but those who fear/ God, and work righteousness./ Let everything that hath breath/ Praise the Lord.

"Let Party spirit cease
Among the sons of God;
In hymns extol the Prince of Peace,
And sound his praise abroad.

"Wilkes-Barré—Penn/ Printed by Steuben Butler,/ 1814/"

Of this Hymn Book of 418 pages only three-fourths of the pages could be found in the pile of sheets. The Society would be greatly pleased to secure a copy for preservation among its Wyomingana. Mr. Jesse T. Morgan, since this writing, has shown the Librarian a well used copy of this rare book owned by his family.

During the past year the Harrison Wright Library has been so filled with needed books on Heraldry that an additional case was ordered to accommodate the increase. The Sheldon Reynolds Library has also overflowed but the required addition was made and presented by Dorrance Reynolds, Esq. The Library of the Society now contains about 16,000 bound books, of which nearly 15,000 have been accessioned. The Society can care for 10,000 more books, but room for the growing number of local newspapers is much needed. These are the foundation of our history and the constant demands for them by students is convincing proof of their value. We take no papers outside of Wyoming Valley except the Scranton "Tribune-Republican". The number of students who visit the Library is on the increase, but the Society must issue a more popular medium of information to fully acquaint the places on the other side of the Susquehanna of the existence of a public library open at all times to students, and the issue of a pamphlet the size of the human hand is suggested, such as many such Societies use, in an edition of 1,000 copies for general distribution. The Librarian has had such a small hand-book ready for printing for some years.

During the past year we have received nearly 3,000 books and pamphlets, as follows:

	Books.	Pamphlets.	
U. S. Government	296	1,500	
State of Pennsylvania..	32		
Purchase	133	10	
Gifts	660	100	
Exchange	250		
	1,371	1,610	Total..2,981.

All of the books from the Government are added to the Library, as are all purchased books and exchanges. But of the gifts many are duplicates which can in time be sold. The pamphlets added to the Depository by the Government are scarcely an addition. They are mostly agricultural and in a mining region rarely inquired for, but until the U. S. Congress alters the law regulating distribution many of these must be kept even though *"dead wood"*.

During the year 250 copies of Volume XI have been distributed to members and about twenty-five copies sold, adding about $70 to the Woodward Historical Fund.

The Corresponding Secretary has written 550 letters and received about 500, to which must be added the many acknowledgments of gifts and exchanges?

The number of books accessioned since the last annual meeting were 550, which also includes the newly bound volumes, 125 of which have been reported in previous years as unbound. Over 14,000 books have been accessioned. With fully 500 Historical and Geological volumes and 100 miscellaneous volumes yet to be bound and accessioned, the library now has 15,000 volumes and 5,000 pamphlets.

The membership of the Society at this date is:

Life Members	204
Living Annual Members	175
Total	379

a total loss of ten since last year's annual meeting. This loss is due to deaths, and three resignations. It is hoped that the new "Committee on Increase of Members" will more than cover this loss.

Respectfully,

HORACE EDWIN HAYDEN.

Corresponding Secretary and Librarian.

Report of the Curator of Archeology for the year ending February 11, 1912.

To the Officers of The Wyoming Historical and Geological Society.

Gentlemen: Speaking in a general sense, it would seem that the subject of Archeology has received more than usual attention during the past year.

The efforts of explorers in the eastern countries, where man is known to have reached a high degree of advancement and culture at a very early time, have been rewarded by discoveries of unusual value and interest.

Writings and inscriptions have been found and already sufficiently deciphered, which give us new information covering the times of the Old and New Testament, and add much to our authentic knowledge about the habits and modes of living of the people, their governmental codes and business systems. The opinions of learned men seem to be that the time when these peoples lived in a state of savagery and barbarism must be moved back into the past to a much earlier time than we have previously thought.

During the year human remains have been found, notably in county Suffolk, England, which may prove that man lived in a much earlier geological period than has heretofore been believed. The skull of the Suffolk county specimen seems not to differ materially from the skull of present day man, and so does not corroborate the theory of man's descent or ascent from the Simian tribe.

Trained Archeologists are in the field in all parts of the world, thoroughly equipped to work out the problems which confront them, and thus increase our accurate knowledge of the history of the human race.

In our own modest field, our society continues to add to its collections, fine and rare specimens of the handiwork of the American Indian, by a study of which it is hoped that the student may be better able to read the history of this interesting people, and so add something to our knowledge of the human race in general.

Among a number of acquisitions by our Society during the year, mention may be made of several which deserve special notice:

There was added to the Zebulon Butler collection, by purchase, the Moses Vandermark Indian baked clay pot, found in 1892, near a trail running southward over the mountain from Wanamie, Pa., toward "Lilly Lake". Specimens of this kind are very rare.

The Society was presented with two articles from the West, through Clara C. Reichard, as follows: A baked clay vessel of peculiar shape found in an Indian grave in Mancas Valley, Colorado, by Augustus C. Parrish; also a hand-wrought metal candle-stick, taken from the wall of Santa Clara Church, New Mexico, by John Reichard.

A wooden goblet, turned from a piece of the "Old Plymouth Elm", or whipping post, from Edwin D. Peckens, presented by his widow.

The Wren collection has been increased by a number of specimens of local Indian implements, showing unusual or not common types, thus contributing to make the Society's collections come more near a complete showing of all the types to be found in the Susquehanna river region, a goal which we have set before us.

It may be said, in conclusion, that the Archeological Department keeps up its interest and continues to make some progress.

Respectfully submitted,

CHRISTOPHER WREN,
Curator of Archeology.

Treasurer's Report,

For the year ending December 31, 1911.

RECEIPTS.

Cash balance, January 1, 1911	$ 2,028.58
Membership dues	905.00
Income from investments	2,525.85
From Commissioners of Luzerne county	200.00
Sundry receipts	37.29
Life memberships	800.00
Investment account	1,313.43
Total	$ 7,810.15

PAYMENTS.

Salaries	$ 1,963.00
Incidentals	120.00
Telephone	30.00
Insurance	100.00
Books	150.00
Cataloguing	36.64
Sundry expense	287.92
Interest on special funds	864.00
Amount invested	3,377.50
Cash balance, December 31, 1911	881.09
Total	$ 7,810.15

SECURITIES IN HANDS OF TREASURER, JAN. 1, 1912.

BONDS.

People's Telephone Co., 5 per cent.	$ 1,000.00
Frontier Telephone Co., 5 per cent.	1,000.00
Scranton Gas and Water Co., 5 per cent.	5,000.00
Muncie & Union City Traction Co. 5 per cent.	1,000.00
United Gas and Electric Co., 5 per cent.	1,000.00
Webster Coal & Coke Co., 5 per cent.	4,000.00
Spring Brook Water Supply Co., 5 per cent.	11,000.00
Plymouth Bridge Co., 5 per cent.	6,000.00
Sheldon Axle Co., 5 per cent.	2,000.00
Columbia Power, Light & Railways Co., 5 per cent.	1,000.00
Canton-Akron Railway Co., 5 per cent.	1,000.00
The Wilkes-Barre Co., 5 per cent.	1,500.00
Minneapolis Gas Light Co., 5 per cent.	1,000.00
Westmoreland Club, 3 per cent.	200.00

STOCKS.

Hazard Manufacturing Co., 20 shares, 6 per cent.	1,000.00
Nine mortgages, 5½ and 6 per cent.	13,000.00
Total investments at par	$50,700.00

Respectfully,

CHAS. W. BIXBY,
Treasurer.

Report of the Corresponding Secretary and Librarian for the Year ending February, 1913.

To the President and Members of the Wyoming Historical and Geological Society.

Gentlemen: I have the pleasure of presenting to you today the fifty-fourth report of the transactions of this Society covering the year that has just passed. It is not to be expected that in every annual report many things that are new must necessarily appear. If the annual reports show a continuous prosperity, even of not a marked progression, it should gratify us, although we should aim to attain the highest advance within our power. And, indeed, if one-tenth of our members would show a real personal interest in the work of the Society our progress would be amazing. Alas, we can count on our ten fingers the number of really interested members. We have some who never go to Europe without bringing back something to add to our treasures. During the past year one member who has travelled to Arizona, Panama, etc., has kept the Society in mind, as he always does, and has brought additions to our collections. Why cannot every member who goes abroad, or to distant places where similar institutions are in existence, recall the admirable Society at home of which he is a member. One recommendation comes to us very often from persons who have travelled here and in Europe in the remark, "What a nice clean home you have here; it is cleaner than any I have visited elsewhere." It is the lack of an earnest individual interest in the educational value of this Society that throws on three or four of the near 400 members all the work. It is the speaker who is full of his subject and interested in it who commands our attention, not the mechanical speaker. A man will come into your office with a patent you care nothing for, but if he is enthusiastic about it he can make you listen and sometimes buy.

Four regular meetings of the Society were held during the last twelve months, namely the Annual Meeting of February 12, 1912, when the election of officers occurred, the annual reports of the Corresponding Secretary and Librarian, and of the Curator of Ethnology, were read, members elected and gifts for the year acknowledged. At this meeting

the amendments to the By-Laws recommended by the Committee of Ways and Means and approved at the December meeting previous were adopted.

Reference to the last annual volume will show that these caused the appointment of four new Committees annually, *i. e.* On the Increase of Membership; On Papers and Essays; On Assistance to the Historiographer, and On Annual Entertainments. These Committees were appointed by the President and were published in Volume XII, in full with the Standing Committee, immediately following the list of officers on page 234. It has been impossible during the past to get all these Committees into active working order, but it is hoped that this will be done during the present year.

The Quarterly meeting of April was held on the 26th of that month, when Mr. Nelson Horatio Darton, F. G. S. A., Geologist of the United States Geological Survey delivered the Geological address on "Recent Geological Observations in the Wyoming Valley". His stereopticon illustrations were from local points in the Valley as compared with illustrations of glacial action in Alaska, showing much remarkable similarity between the glacial discoveries of Alaska and certain marked manifestations of glacial action in the Valley. The address excited much interesting discussion and will appear in the next volume of Proceedings.

At this meeting Mr. Christopher Wren, Curator of Ethnology, also read a most interesting paper on "Some Indian Graves Discovered at Plymouth" This paper was published in Volume XII, with illustrations.

The regular Quarterly meeting of October was held on the 11th, when twelve annual members were elected.

On December 13th the Quarterly meeting was held to hear Mr. Christopher Wren, Curator of Ethnology, deliver an illustrated lecture on "North Appalachian Pottery", with special reference to fine specimens in the collections of the Society. The paper was of unusual interest, since most of the local pottery shown had never before been thus exhibited, and the display of very fine pots from other parts of the State was unexpectedly rich. The lecture excited marked interest and the paper will form the Ethnological pages of Volume XIII.

It is not generally known that the Ethnological collections of the Society, especially in the Wren and Berlin departments, are possibly equal to the best Pennsylvania col-

lections in the country and will furnish material for many valuable papers in the future.

The importance and value of the Society to the public and of its library to students, from all parts of Northeast Pennsylvania is becoming more and more evident annually.

The main features of the Library and Collections are American History, including Ethnology, Geology and Genealogy.

To meet the needs of the scientific departments the library contains all of the very extensive and exhaustive publications of the U. S. Geological Surveys covering the entire western part of the continent, with the Annual Report of the Geologist of every State and Territory in the Union from Maine to California and from Alaska to Florida.

This Society is the only Depository in Northeastern Pennsylvania for full United States and State Geological Reports and literature. But how to impress this fact on the public mind after fifty-five years of active existence is a problem not yet solved.

Some time ago one of the most eminent geologists in the valley, after spending hours in the library, asked the Librarian as a last resort, "Where can I find Silliman's Journal of Science; I have searched everywhere this side of Philadelphia?" The Librarian replied, quietly: "In the next room." Instantly the question followed: "How long have you had it?" "About thirty years," was the reply. And yet all the publicity possible short of printing a catalogue has been given to the fact that this is the Wyoming Historical and Geological Society, and its geological library contains fully 2,000 volumes, and is growing annually.

The importance, however, of the Genealogical department of the Society is becoming more and more realized. Max Muller says that "All history begins with the individual. Who am I? Whence came I? What brought me and my people here?"

This has been recognized in a marked degree by that part of the Union whence came the early settlers of this valley? In New England nearly every town has published its history, and almost every family of the early settlers its genealogy. President John Adams is credited with the saying that "The man who is not proud of a virtuous ancestry is either a natural fool or an unnatural fool."

Pride of descent is a strong factor in promoting patriotism. It stimulates a love of family, of section, if you please of State, as well as of country. It creates "noblesse oblige". It is a source of manly and just pride to know that for eight or nine generations from the earliest emigrant to the present descendant one's ancestors have been Americans, identified with the new world as citizens, as Christians, as soldiers who have borne arms in defense of American liberty in all of her wars, property holders, owning and living in their own homes and on their own soil.

The feeling of possession can do more to develope the best in man, than the knowledge of his descent from Governors, or Presidents, or men of fame. The homogeniety of the Southern States is the cause of their cohesiveness politically as well as socially. There it is like one great family American born, and even the negroes are native Americans. A lady from one of the border States visiting relatives in Virginia one day quizically said to her hostess: "I want to go home where no one is kin to the others. Here I cannot say one word against anybody without treading on some one's cousins' toes."

And yet while the New England States have richly developed their genealogy, the Middle and Southern States have been until lately much behind the times in this with a noble but unappreciated heritage. When the writer came to this Valley he found Dr. Harrison Wright and Mr. Sheldon Reynolds, like himself deeply interested in family history and genealogy. They kindly warned him to be reticent on the subject, as to be a genealogist indicated one not sure of his antecedents? But within a few years the Sons of the Revolution, the Daughters of the American Revolution, and the Colonial Dames were organized in the Valley and the genealogical infection spread everywhere.

We find, however, that Pennsylvania settled by English Quakers, Scotch Presbyterians, and German Pietists, has been sadly deficient in family interest. The Historical Society of Pennsylvania, The Genealogical Society of Pennsylvania, and this Society, are the main organizations specially devoted to the study in Eastern Pennsylvania. The various local histories like Kulp's Families of Wyoming Valley and Hayden's Genealogical and Family History of Wyoming Valley, while they have largely supplied this section with family records, as Egle's Notes and Queries have

the central portion of the State, only touch the surface. But the interest is quickening into life.

It is hard to realize that during the summer of 1911 probably 100 *family reunions* were held in this Valley, bringing together the kinsfolk to know each other, and fostering the interest in family history. Among these were the families of Ashelman, Austin, Allen, Bittenbender, Bassett, Baringer, Benscoter, Brennan, Boyer, Cary, Cease, Carver, Campbell, Chapman, Corby, Daniels, Eschleman, Evans, Elston, Frantz, Gregory, Hildebrand, Harter, Hilbert, Hill, Holcomb, Ide, Jackson, James, Jones, Kocher, Kester, Keating, Lamoreaux, Lutsey, Myers, Moss, Morgan, Montross, Owens, Pettebone, Rice, Roberts, Ransom, Robinson, Snyder, Shoemaker, Sutton, Shales, Stone, Thomas, Travers, Walter, Welter, Warden, Williams, Whitmire, Wright, Wolf.

Supposing this same indication of family interest to exist in various parts of the State of Pennsylvania the scope of this Society must be greatly enlarged to meet the future growth of genealogical inquiry. And if all of these families after their reunions would deposit in this Society something of their genealogy it would greatly help those of their number who visit this Library before the reunion in order to know whom they commemmorate at the reunion. But nothing from any of them is ever added to our treasures and yet annually some of them visit this library for such work. We have already added to our catalogue work a card index of all families given in the various Pennsylvania county histories possessed by us, none of which are published in Munsell's Genealogical Index.

In Volume XII, published last year, there will be found, on pages 21-23, a full list of the books on Heraldry and Genealogy and family history from the English standpoint and belonging to the Harrison Wright Library. The Sheldon Reynolds Library is devoted entirely to rare American History and Genealogy, especially the latter, and a list of the books in it will be published in Volume XIII. The Osterhout Library does not keep genealogy. But it does keep and continue the most valuable genealogical work in the Union, the "New England Historical and Genealogical Register", of sixty-five volumes, completely indexed, always accessible to students and rich in New England Family History.

This Society instead takes the almost equally valuable

New York Genealogical and Biographical Record of near fifty volumes containing largely New York and New Jersey genealogy. Thus we have fully 425 volumes of magazines devoted largely to the subject, which with what the Osterhout Library contains make fully 500 volumes. The entire library of the Society contains nearly 1,000 volumes of genealogy. Gifts of such works are gladly welcomed. Many of the privately published titles on family history are gifts from the authors.

It is now well known that genealogy is expert work and commands from those who undertake it from five dollars to twenty-five dollars a day. It is therefore amusing what odd experiences come to the Librarian in the estimation placed on it by some visitors. It is the rule that no financial compensation can be accepted from any one for work of any kind done for students or visitors who come to the Society library for the purpose. It is absolutely free to members or non-members, yet at times a lady from a near-by county visits the rooms for research. Every facility is given by the Librarian, himself an expert, and hours are sometimes devoted to help the student, who, when she leaves, places a 25-cent piece on the table with her thanks! Or the male student after the same labour will extend his hand of thanks with a silver dime in it for compensation. The reply is always: "No, thank you, there is no charge for students who use this library."

In the department of American History there is also a marked increase in works that help. For students preparing for debates the Congressional Library issues more than annually "Lists of Works" to be found in that library on subjects chosen for such debates, *e. g.* "Works Relating to Germans in the U. S.," "Occupation of the Philippine Islands," "Popular Election of Senators," "Inheritance and Income Taxation," "Labours and Strikes," etc. Fully 100 of these aids are kept in this Society, with every reference to the special subject at hand in the Government Public Documents and in the Osterhout Library. And here many students come in the season of debates for study, with admirable success.

The Historical Library of the Society keeps on its shelves the regular publications of over 100 Historical Societies, with many Scientific Societies, the most of which are mines of knowledge for historical students. Its exchange

list covers transactions with 100 Societies and Libraries from Canada to Mexico. These publications are mainly secured by exchange with our own publications. Among those received during the past year were the thirty-eight finely bound volumes of the New York Historical Society, rich in history, and containing the fourteen valuable volumes of New York Wills from 1665 to 1706. This is the largest and most important exchange given to us at one time and greatly enriches our library? We have added during several years past about fifty volumes by purchase of the Vital Records of Essex and Middlesex counties, Mass., covering all births, marriages and deaths of the towns of that section, published by the New England Historical-Genealogical Society at the price of one cent per page, but our limited book fund has compelled us to discontinue the series, though filled with the ancestry of Wyoming families. In this connection a very important movement is here suggested for the members of this Society. It is that something should be done to preserve copies of the gravestone inscriptions in the various graveyards and cemeteries throughout the county of Luzerne. Many of these run back to Revolutionary times. The great value of preserving these records of the past may be shown by the experience of the Librarian.

There was for many years a well filled graveyard at the town of Plains, in this county, where many of the families of the old settlers of the Valley lie buried. Within the past forty years the great influx of foreign population from Hungary, and elsewhere, who located there for the mining of coal, has been the one factor in the entire destruction of this graveyard, until every sign of the place having been used for such a purpose has been removed. Some ten years ago the Librarian visited the spot to find, if possible, the grave of one of the residents who died 100 years ago. All that was left on the ground was a stone slab broken in four pieces, inscribed with the following record of the person sought.

"Desire Wilcox wife of Isaac Wilcox departed this life March 1 (1810?) aged 65 years 5 mo 15 D'ys"

This lady was the ancestress of many residents of the Valley to-day and when one of her descendants, at the suggestion of the writer, took the fragments of this stone to his home for preservation, the very last vestige of the old graveyard disappeared.

The Librarian has himself copied off all the inscriptions in the two oldest graveyards at Dallas, where many graves and markers are so grown over, sunken, and broken, that they cannot be known or deciphered. Will not somebody undertake this work for the sake of preserving what will soon disappear? There are many small graveyards in the Valley, public and private, and containing the remains of persons whose death is not even recorded in the newspaper of the day, as can be learned by comparing family records with the papers. Until of late years the newspapers have not been careful preservers of local news.

Numerous applications come to the Librarian from persons once living here for vital statistics of their family which cannot be found in the local newspapers, but might be found in the graveyards. The Court House of the county is not conveniently situated to enable easy access to records there, and copies of the inscriptions from graveyards would often help such seekers. In New York State the law requires all towns to care for the graveyards. It is not so in this State, but if members would secure the graveyard inscriptions for this Society they would be typewritten and made accessible to the public. The most important Genealogical Society in the country, The N. E. Hist.-Gen. Society, has done a very extensive work of this kind in Massachusetts and card catalogues such vital statistics. Why cannot this Society do the same?

The Librarian reports for the Committee on Essays and Papers that during the present year we are promised two historical papers. One of local interest at the April Quarterly Meeting, and one in the fall, with the prospect of a geological paper at the Quarterly Meeting of October.

He also reports, as Editor of the Proceedings of the Society, the issue during the past fall of Volume XII, bound beautifully in cloth, the first venture of the Society of this kind. It has called forth high praise at home and elsewhere, and we hope it has established a custom which will be made permanent. To our generous member, Mr. Abram Nesbitt, we owe it that this new departure has been made, he having given the needed sum of $150 to meet the expense. Not to continue an improvement so successfully made would be making steps backward in the history of the Society. Cannot some other member be persuaded to duplicate this gift for Volume XIII, which is now nearly ready for the press.

The forthcoming volume, XIII, will contain the geological address given before the Society last year by Mr. N. H. Darton, F. G. S. A. of the U. S. Geological Survey; Professor John L. Stewart's address on Modern Views of the Federal Constitution (the Laning Historical Paper); Echoes Number Three of the Massacre of Wyoming; The Records of the Town of Westmoreland; St. Stephen's Church Register and other matter of local history.

Financially the Society is in a prosperous condition, the invested funds amounting to over $53,000. But when it is remembered that of the twenty-one funds fully nine, aggregating $18,500, have been given and accepted for special purposes, and thus divert one-third of the income of the Society from necessary expenses, the total of $53,000 does not really meet the growing needs of the work. Only two funds created for the general expenses are incomplete. The Ingham Fund, now $500, and the Rev. Jacob Johnson Fund, now $300. The Stanley Woodward Fund for Historical Addresses was completed last year, and the Ingham Fund will now receive all the income from the sale of publications, so that within a few years that Fund will reach $1,000. The Johnson Fund increases by the sale of Dr. Johnson's Historical Record, a local publication which members of this Society ought to place in their private libraries. The Fund is to commemorate the First Pastor of the First Presbyterian Church of this city, the mother of all religious endeavour in the Wyoming section, and parts adjacent? The fourteen volumes full of local history are for sale at the modest sum of $15.00.

Gifts to the amount of $7,000 are needed to cover what the work of the Society really demands, increasing the endowment to $60,000. When the necessity of adding $7,000 to our endowment is suggested, the amount seems large, but when it is realized that $7,000 invested will add only $350 to our income, it does appear a very small matter, indeed, where such a sum is a mere bagatelle to many men of means. Of this sum $150 for binding our annual volume and $200 for the purchase of books would add largely to our efficiency and permanent stability. Money is worth only what it will buy, and it must be left behind us when we die? Left as a legacy in one's will to this Society, it would not be missed by the giver who has exchanged this life for the eternal life, nor by his heirs who will share his large estate. Gentlemen,

this Society has earned its right to ask for more means by what it has done in the past twenty years. It is a permanent and living organization and a most influential factor in public education for the increasing of population which has made this section of Pennsylvania the richest in the State.

The gifts received by the Society during the past year are not so numerous as those reported at our last annual meeting but doubtless are as valuable. Of portraits the Trustees have received and accepted the following:

Daguerreotype of Hon. Chester Butler, 1798-1850, member of the Luzerne county Bar, 1820-1850, and Member of Congress from this county, 1845-1850, son of General Lord Butler, presented by Mrs. Lord Butler Hillard.

Oil portrait of John Bennett, 1790-1863, an original member of this Society, 1858, and for many years a teacher and surveyor, and also an oil portrait of Charles Bennet, his son, 1819-1866, original member of this Society, 1858, and member of the Luzerne county Bar, 1845-1866. Both of these are a legacy to the Society from Miss Martha Bennett, deceased, the daughter of Charles Bennett, Esq.

Crayon portrait of Lord Butler, 2nd, 1805-1861, an original member of this Society, 1858, presented by his granddaughter, Mrs. Mary Butler Ayres.

Other gifts of value and worthy of special mention are as follows:

Arm chair from Forty Fort, purchased from John Myers about fifty years ago and claimed by the family to have been brought from the Fort, with the table on which the capitulation was signed, by the Myers family, after the Massacre. Presented by the estate of A. R. Brundage, Esq.

Over 1,000 Indian artifacts from the Susquehanna water shed by Mr. Christopher Wren, Curator of Ethnology.

Cannon ball from the battlefield of Manassas and an exploded shell from the same field, a sword from Gettysburg, and a fine specimen of Trilobite from Trenton Falls, N. Y., presented by Mr. George H. Catlin.

Seventeen specimens of agatized wood; pottery from the Cliff Dwellers, and stone hammer, all from Arizona, presented by Oliver S. Hillard, Esq.

Thirty-five bound volumes of the Proceedings of the New York Historical Society, being collections from 1868 to 1909, a most valuable and useful addition to all historical and genealogical students. The Society may well be proud

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of this extensive and rich source of information, including, as it does, the eighteen volumes of New York wills from 1665 to 1796. Other volumes of value have been received from individuals, such as "Colonial Families of the United States," Volume I, from the author, Mr. George Norbury Mackenzie, of Baltimore; the "History of the Luzerne Court House," by the author, Mr. Robert P. Robinson; the "History of Bowman's Hill," Wilkes-Barré, the gift of Gen. C. Bow Dougherty; the "Weyburn Family," by the author, Mr. S. F. Weyburn; the "Mumford Family," by the author, Dr. James Gregory Mumford, etc., etc.

Also worthy of mention is Volume XIX, "National Gazette," Philadelphia, 1839, given by Mr. John H. Agnew, Lee Park, which oddly fills out the fine set given many years ago to the Society by Captain Washington Lee, Jr., an original member. Many gifts of fossils, and pamphlets of local interest have been received from Mrs. C. D. Foster, Mrs. Charles A. Miner, Mrs. Horace See, Mrs. J. C. Phelps and Messrs H. H. Ashley, Ernest Wroth, Stewart Swingle, Alva Marion, Rev. H. E. Hayden, Mr. Herbert and Miss Emily Schonk, Mr. A. D. Smith, and others. The fine Indian artifacts added to the Ethnological collection from the Curator, Mr. Christopher Wren, will be mentioned in his report.

During the year the Society has received about 1,000 books and 300 pamphets added to the Library, *i. e.:*

	Books.		Pamphlets.
United States	500		300
Pennsylvania	51		
Exchange	120		
Gifts	110		
Purchase	120	Total	901
		Total	1,201

The Corresponding Secretary reports letters written and gifts acknowledged, 489; letters received, 410. This does not include delivery of 400 copies of our Proceedings to members.

The Historiographer reports the following deaths among the members of the Society during the past twelve months:

Mr. William Murray Alexander, d., February 18, 1912.

Mr. George Washington Leach, Senior, d., April 30, 1912.

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Mr. James Henry Fisher, d., April 3, 1912.
Mr. Edmund Hurlburt, d., October 30, 1912
Miss Frances Jane Overton, d., January 28, 1913.

During the year the following additions to the membership were made:

HONOURARY.

Professor John L. Stewart, Ph. B., Lehigh University.

CORRESPONDING.

Mr. Horatio Nelson Darton, F. G. S. A.

LIFE.

Allan Hamilton Dickson, Esq., deceased.

ANNUAL.

Mr. Shepherd Ayars.
Mr. Theodore Strong Barber.
Miss Mary Gillette Brundage.
William Overfield Bunnell, M. D.
Mr. Oscar Herbert Dilley.
Mr. William Henry Castle, Philadelphia.
Mr. Charles Enzian.
Rev. James M. Farr, D. D.
Mr. Ralph Wingfield Ferrell.
Mr. Harry Clarke Mason.
Mr. George Nicholson.
Mr. James H. Shaw, Wyoming.
Mr. Dunning Sturdevant.
Mr. Guy Sturdevant.
Mrs. Mary Stark Sturdevant.
Mr. Walter Carleton Sterling.
Mr. Ernest Gray Smith.
Mr. Theodore C. Von Storch, Scranton.

1, honourary; 1, corresponding; 1, life; 18, annual.

The membership of the Society at this date is:

Life Members	207
Annual Members	175
Total	379

Respectfully,
HORACE EDWIN HAYDEN,
Corresponding Secretary and Librarian.

Report of the Curator of Archeology for the Year ending February 11, 1913.

To the President and Members of the Wyoming Historical and Geological Society, Wilkes-Barré, Penn'a.

As the years pass it seems that more and more attention is directed to the history of man and the civilizations that flourished in ages past and which have been largely lost sight of and forgotten.

Leading magazines print long articles on travels in distant and strange lands, describing the customs and manners of the peoples and the geography and natural features of the country, which are read with eager interest by our people.

People of wealth are freely giving of their means that explorations and investigations of long forgotten cities may be successfully carried on, solely that we may know of our remote ancestors and about the beautiful world in which we live. The year 1912 has not been without interest in the archeological department of our society. In our own modest field we continue to gather new and rare things to our collections which cannot fail to be of assistance to those who shall come to make the final summing up of the early history of the region in which we live.

During the year just closed there have been received several things which it may be appropriate to mention here, in the absence of a complete catalog of the years accessions:

Mr. O. H. Hillard presented to the Society a number of Indian relics from Arizona.

There have been added to the Zebulon Butler collection, by purchase, about 225 Indian specimens from the vicinity of Lock Haven, Pa., among them a stone pestle, 27½ inches long. The Christopher Wren collection has been increased by about 1,000 specimens, among them the leather tobacco pouch of Sitting Bull, the noted Sioux chief, well authenticated; a copper spear point, found in Wyoming Valley; a horn spoon from an Indian grave at Northumberland, Pa., the remainder being from the Susquehanna water shed.

If the members of our Society, who travel in distant parts of the world, would pick up something, peculiar to the locality visited, for presentation to the Society, such things would add to the richness of our collections and it would also give the donor more of a personal interest in the activities of the Wyoming Historical Society, *their* Society.

Respectfully submitted,

CHRISTOPHER WREN,
Curator of Archeology.

Treasurer's Report,

For the year ending December 31, 1912.

RECEIPTS.

Cash in bank, January 1, 1912	$ 881.09
Membership dues	895.00
Income from investments	2,505.56
Investment account, investments paid and new subscriptions	4,104.60
Life memberships	200.00
Luzerne county appropriation	200.00
Special subscription for the binding of annual volume	150.00
Total receipts	$ 8,936.25

PAYMENTS.

Amount invested	$ 5,020.00
Salaries	2,037.00
Incidentals	150.78
Telephone	30.00
Interest on Special Funds	886.50
Books	150.00
Binding annual volume	150.00
Publishing account	73.50
Sundry expense	55.46
Cash in bank, December 31, 1912	383.01
Total payments	$ 8,936.25

SECURITIES IN HANDS OF TREASURER, DEC. 31, 1912.

BONDS AND STOCKS.

Pacific Gas & Electric Co., 6 per cent.	$ 500.00
People's Telephone Co., 5 per cent.	1,000.00
Frontier Telephone Co., 5 per cent.	1,000.00
Scranton Gas & Water Co., 5 per cent.	5,000.00
Muncie and Union City Traction Co., 5 per cent.	1,000.00
United Gas & Electric Co., 5 per cent.	1,000.00
Webster Coal & Coke Co., 5 per cent.	4,000.00
Spring Brook Water Supply Co., 5 per cent.	11,000.00
Plymouth Bridge Co., 5 per cent.	6,000.00
Sheldon Axle Co., 5 per cent.	2,000.00
Columbia Power, Light & Railways Co., 5 per cent.	1,000.00
Canton-Akron Railway Co., 5 per cent.	1,000.00
Wilkes-Barre Company, 5 per cent.	1,500.00
Minneapolis Gas Light Co., 5 per cent.	1,000.00
Indianapolis, New Castle & Eastern Tr. Co., 6 per cent.	1,000.00
Twenty shares stock Hazard Mfg. Co., 6 per cent.	1,000.00
Total bonds and stocks	$39,000.00
Seven mortgages, 6 per cent. $11,300.00	
One mortgage, 5½ per cent. 2,700.00	
	14,000.00
Total investments at par value	$53,000.00

CHAS. W. BIXBY,
Treasurer.

Funds Participating in the Income and Investments, July 1, 1913.

1.	Colonel Zebulon Butler Fund, Ethnology	$ 1,000.00
2.	Coxe Family Publication Fund	10,000.00
3.	Horace E. Hayden Fund, Geological Lectures	1,500.00
4.	Colonel Matthias Hollenback Fund, General	2,000.00
5.	Andrew Hunlock Fund, Binding	1,000.00
6.	Dr. Charles F. Ingham Fund (Minimum $1,000.)	520.00
7.	Rev. Jacob Johnson Fund, General (Minimum $1,000.)	350.00
8.	Fred Morgan Kirby Fund, General	1,000.00
9.	Ralph D. Lacoe Fund, Paleozoology	1,000.00
10.	Augustus C. Laning Fund, Historical Lectures	1,000.00
11.	Abram Nesbitt Fund, General	1,000.00
12.	Sheldon Reynolds Fund, American History	1,000.00
13.	Captain L. Denison Stearns Fund, General	1,000.00
14.	Dr. Lewis H. Taylor Fund, General	1,000.00
15.	Edward Welles Fund, General	1,000.00
16.	Hon. Stanley Woodward Fund, Historical Lectures	1,000.00
17.	Dr. Harrison Wright Fund, Heraldry	1,000.00
18.	Life Membership Fund	20,700.00
19.	General Fund	4,300.00
20.	Hon. Charles Abbott Miner Fund, Geology	1,000.00
21.	George Slocum Bennett Fund, General	1,000.00
22.	Sidney Roby Miner Fund, General	2,000.00
	Total	$55,370.00

No. 6 will be completed by the sale of the Society's Publications, and No. 7 by sale of Johnson's "Historical Record of Wyoming."

EXPLANATION OF THE INVESTED FUNDS.

It will be noticed that of the "Invested Fund" of $55,000, reported on page 39, fully one-third, or about $20,000 is marked for special purposes, leaving only $35,000 for general purposes. This is fully explained in Volume XII, page 20a. It is briefly referred to here for the benefit of members.

These Special Funds are all of private origin, given only for the purpose specified in the gift, hence could not be used for the current expenses of the Society, for which the remainder, $35,000, is not sufficient if the Society expects to grow in usefulness.

Fund No. 1 was given by the heirs of Colonel Zebulon Butler exclusively (as a Memorial to that distinguished officer) and designated for the ethnological department of the Society.

Fund No. 2 was given by the Coxe family of Drifton exclusively to provide for the annual publications of the Society and cannot be diverted to other uses.

Fund No. 3 was created by Rev. Mr. Hayden to secure an annual geological address before the Society.

Fund No. 5 was given by Mr. Andrew Hunlock to meet the very great need of binding books.

Fund No. 9 was created by the family of Mr. R. D. Lacoe and the Society to provide for the large Lacoe paleozoic collection presented by that gentleman.

Fund No. 10 was donated by Mrs. George Cotton Smith in memory of her father, Augustus C. Laning, Vice President, 1861, to provide annually an historical address before the Society.

Fund No. 12 was given by the immediate family of Sheldon Reynolds, Esq., President, 1895, to establish a Memorial library of rare American history.

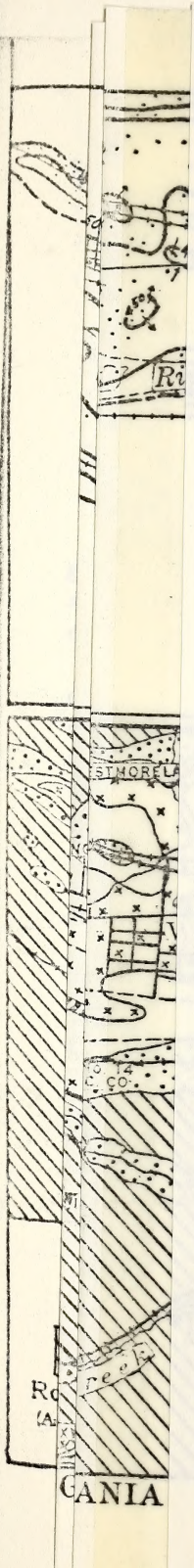
Fund No. 16 was created by the sons of our honoured founder and President, Judge Stanley Woodward, also to provide an annual historical paper to be read before the Society.

Fund No. 17 was the gift of the relatives of Harrison Wright, Ph. D., to whom the Society is so deeply indebted, to create a Memorial library of English heraldry and genealogy.

Fund No. 20 was designated by the givers, the family of Hon. Charles A. Miner, so long a trustee of the Society, for geological purposes.

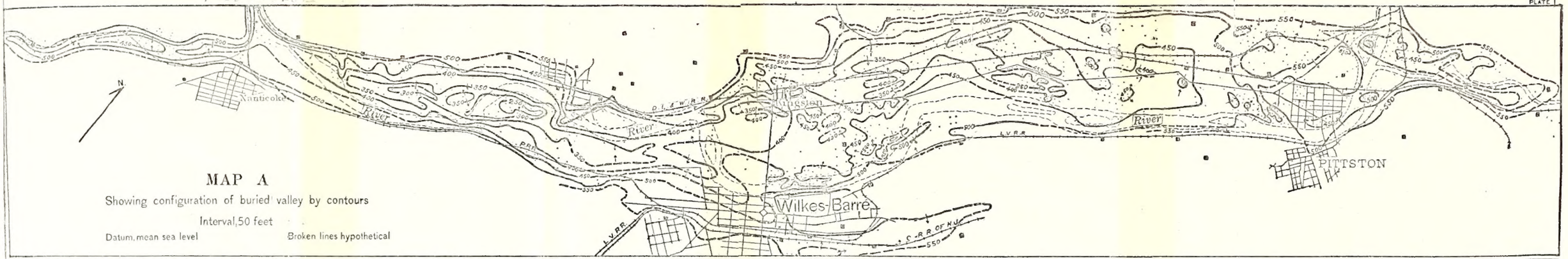
All the rest of the Funds of the Society are devoted to general purposes and contributed as such by individuals, except the Life Member Fund, which is created by the Life Members fees, all of which are invested.

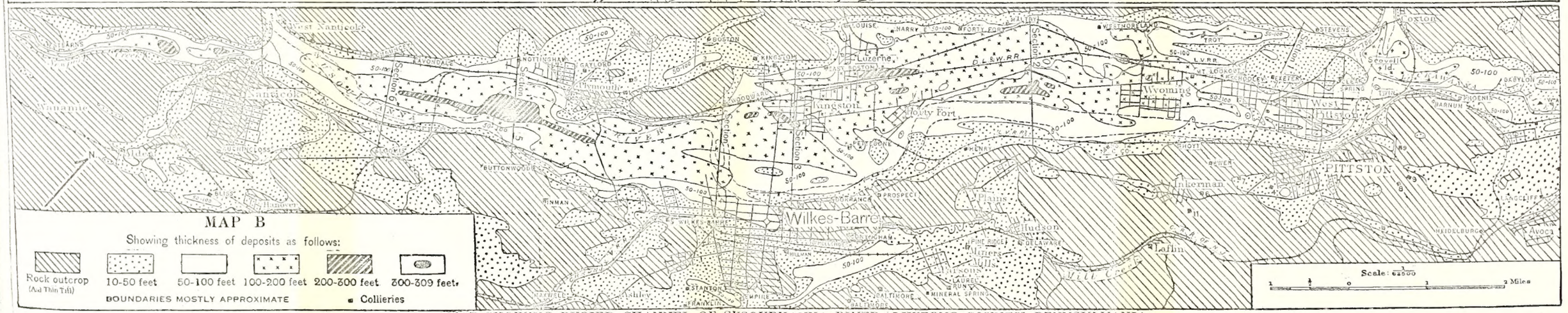
There are other needs for which members are urged to contribute to meet the growing work of the Society, the only organization of its kind and importance in the State outside of Philadelphia. Why cannot members mention in their wills gifts for the increase of these Funds and so perpetuate their own names by useful giving that will live after them.


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PLATE I





MAP SHOWING BURIED CHANNEL OF SUSQUEHANNA RIVER, LUZERNE COUNTY, PENNSYLVANIA

BY N.H DARTON



SOME FEATURES OF THE QUATERNARY DEPOSITS IN THE WYOMING VALLEY REGION.

With a Map of the Buried Valley of the Susquehanna River.

By Nelson Horatio Darton, F. G. S. A.
Geologist, United States Bureau of Mines.

READ BEFORE THE WYOMING HISTORICAL AND GEOLOGICAL SOCIETY, APRIL 26, 1912.

(HAYDEN GEOLOGICAL LECTURE FUND.)

INTRODUCTORY.

During portions of 1909, 1910 and 1911 the writer conducted geological investigations in the northern anthracite coal basin, at first for the U. S. Geological Survey and later for the Federal Bureau of Mines.

The first work was a study of the structural and other conditions under which explosive gas occurs in coal, and later an examination was made of the deposits of sand, gravel and other materials available for filling coal workings. The first investigation involved a detailed determination of the structure of the coal basin from Forest City to Shickshinny, the second required extensive field observations of the surficial deposits which are largely of glacial origin. In both of these investigations a large number of valuable data were obtained from the mine maps and bore hole records which were kindly placed at my disposal by all the coal companies.

The principal feature of this paper will be to present some results of observations on the glacial and other Quaternary deposits of the Wyoming Valley, especially those which throw light on the topographic developments of the region. I did not have opportunity to examine all of the glacial geology and only the more significant features were investigated.

Much attention was given to the buried valley of the Susquehanna River, a subject which was treated before this society ten years ago by Mr. William Griffith. During the past few years the various coal companies in the Valley have bored a

large number of additional test holes to the bed rock and these have given most important information as to the configuration of the floor of this remarkable trough. In fact, the main underground relations are now well elucidated excepting in certain relatively small areas, and, of course, many minor features remain to be worked out. A careful compilation was made of all the bore holes, old and new, and from these the map given as Plate I was constructed. This map shows the configuration of the buried valley floor by 50-foot contour lines with a sea-level datum or base. Where the data are not complete, broken lines are used to show that there is more or less uncertainty as to the precise position of the lines. The location of the more significant borings is indicated by dots in order that persons interested in the local feature can judge as to the amount of evidence on which their representation is based.

NORTHERN PENNSYLVANIA DURING THE GLACIAL EPOCH.

The great continental ice sheet of the Glacial Epoch reached far into the northeastern portion of Pennsylvania and remained there for many years. In the region southwest of Wilkes-Barré its southern limit was a short distance south of Berwick or not far south of Shickshinny. The limiting line extends nearly due east and west but has many local sinuosities. It is marked by the irregular ridge of sand gravel and boulders known as a terminal moraine which is a prominent topographic feature along most parts of its course. South of this moraine the rocks are mostly bare, or covered by soil and in the valleys by stream deposits. North of the moraine there is a more or less continuous cover of glacial drift or till, partly deposited under the glacier and partly the residue left when the ice melted and finally disappeared. Streams of that epoch also laid down a large amount of materials now mostly in form of terraces.

During the time of its maximum development the ice sheet was undoubtedly several thousand feet thick and it was moving southward with slow but unswerving progress. We can obtain

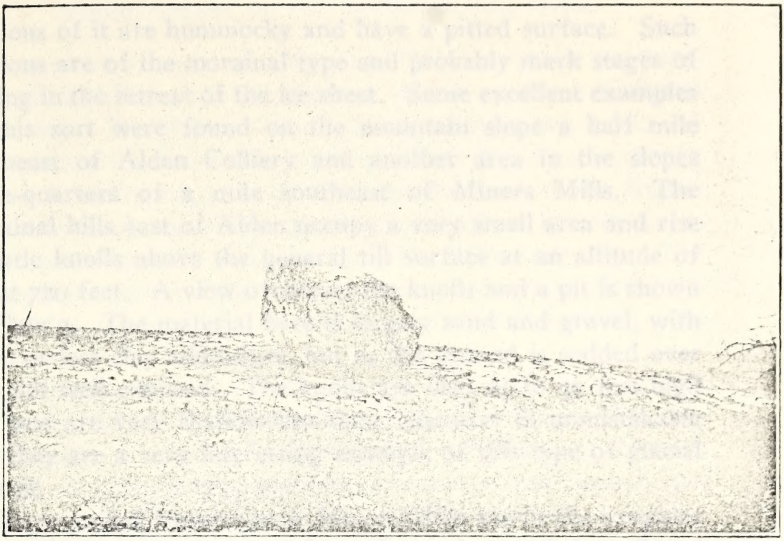
some idea of its aspect from the great ice caps now covering parts of Greenland and the continent about the South Pole; a great expanse of ice of monotonously smooth surface extending for thousands of miles to the north and spreading east and west entirely across the continent. It overrode the mountains and valleys which had most of their present forms prior to the Glacial Epoch, and only modified the minor features of surface configuration. In its earlier and later stages, and especially in its lower part, the glacier was considerably deflected by the higher ridges. The ice picked up more or less local material, which became imbedded and was carried southward, to be deposited in a body of greater or less thickness at the melting margin of the glacier, and over the whole area when the ice finally all melted away. This was the means of transportation of many of the rocks now found in the area, far away from the place where they were picked up in the regions north. This glacial detritus blocked many of the old valleys so that after the retreat of the ice the streams had to clear out their channels or excavate new ones and even now in many areas the drainage is not fully restored to its original completeness. These conditions, the peculiar topography of the drift deposits, the northern origin of the transported material and the grooves and striæ cut on the rock ledges are ample proof of the presence of the great ice sheet. These striæ or scratches on the hard rock surfaces are one of the most convincing evidences of the ice movement and of its great power. They were cut by stones carried forward by the ice in the bottom of the glacier. Scratches of this character and extensive areas of rounded and polished rock surfaces are to be observed at many places in the mountains adjoining the Wyoming Valley and at a few localities in the Valley itself. Most of the scratches have a general north to south direction. Some of them, recorded by H. C. Lewis in his report on the terminal moraine, are on Penobscot Knob, where they bear south, 10 degrees west, and occur at various heights. On the summit of this knob Lewis also found the large boulder of Pottsville conglomerate shown

in Plate III, lying on glaciated ledges of older rocks at an altitude higher than that of any of the Pottsville outcrops to the north. This observer records striæ at several places in Pittston, with direction south, 53 degrees west, and which with other striæ at low levels, indicate that the lower part of the ice had movement down the valley. H. D. Rogers also noted that the striæ at low levels extended in a large curve from the gap opposite Pittston, down the Valley and towards the gap at Nanticoke.

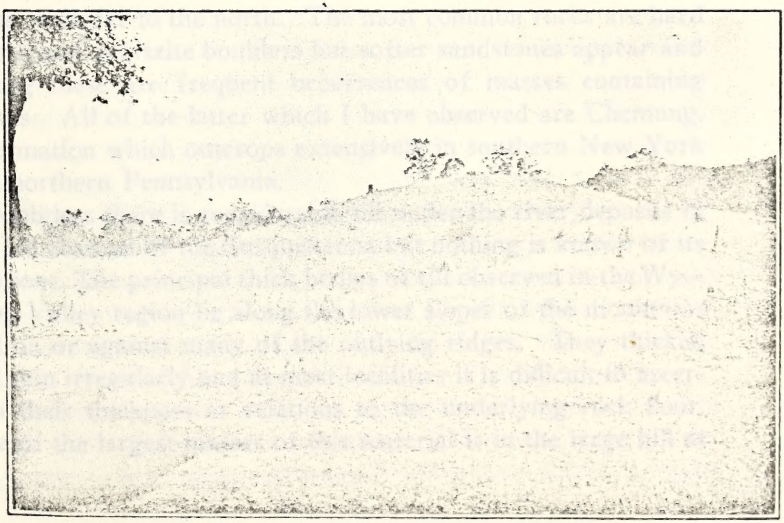
GLACIAL TILL.

In considering the Quaternary geology of the Wyoming Valley region it is desirable to discriminate as far as possible the till or glacial drift left by the melting ice from the deposits laid down by moving water, especially those deposited by the river and its branches at various stages, and by transient streams caused by the presence of the ice particularly at the time of its retreat. This separation is not always easy to make, however, for in many places the character and relations of the materials are not revealed and the original drift merges into rearranged deposits. Later erosion also has modified the form notably of terraces, some of which are removed or cut into rounded hills.

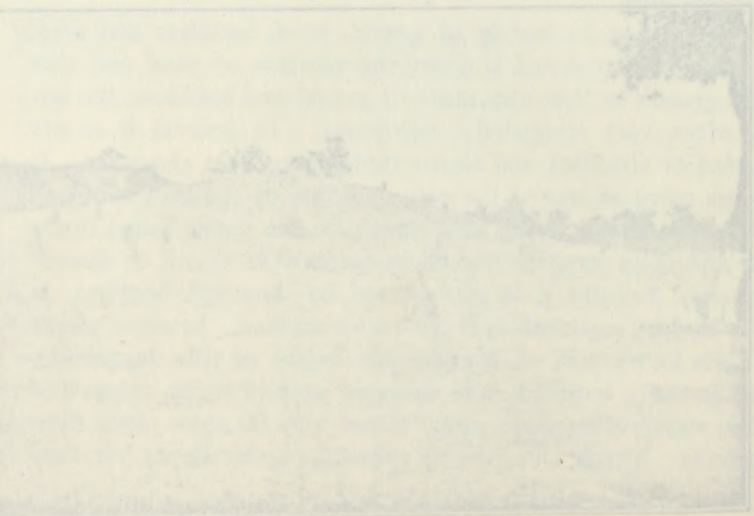
The till consist mainly of gravel, sand, boulders and clay. Much of the material is a varying mixture of sand and clay with greater or less admixture of gravel and boulders, the latter often very irregularly distributed. In general it is not bedded or stratified and shows rapid changes in character. It covers more or less of the entire surface of the area to which this paper relates, lying as a mantle on the rocks, but it thickens and thins irregularly, and in places it is absent or discontinuous. Locally it is represented by detached boulders or rock masses scattered over the rocky surface. In other places it rises in mounds of considerable height or fills depressions and at many localities it is wrapped around rocky ridges and hills, constituting their outer slopes and in some cases their summits. Nearly all of the till presents regular slopes but some



Boulder left by glacier on summit of Penobscot Knob, four miles south of Wilkes-Barre, Pa. It lies on glaciated surface of Pocono sandstone.



Morainal till on slope one-half mile southeast of Alden, Pa. Shows hummocks and pits.



portions of it are hummocky and have a pitted surface. Such portions are of the morainal type and probably mark stages of halting in the retreat of the ice sheet. Some excellent examples of this sort were found on the mountain slope a half mile southeast of Alden Colliery and another area in the slopes three-quarters of a mile southeast of Miners Mills. The morainal hills east of Alden occupy a very small area and rise as little knolls above the general till surface at an altitude of about 720 feet. A view of one of the knolls and a pit is shown in Plate 3. The material here is largely sand and gravel, with more or less clay admixture, but as the ground is sodded over it is not well exposed. The knolls are only 25 to 30 feet high and pits are very shallow but their character is unmistakable and they are a very interesting example of this type of glacial deposit.

The morainal features near Miners Mills are in the irregular slopes about three-quarters of a mile southeast of the railroad station. The altitude is between 640 and 670 feet above sea level. The area is only a few acres in extent and while the hills are low the pitted surface is distinct.

A notable feature of the boulders in the till is the great variety of rocks which they include, many of them having come from far to the north. The most common rocks are hard quartz and quartzite boulders but softer sandstones appear and among these are frequent occurrences of masses containing fossils. All of the latter which I have observed are Chemung, a formation which outcrops extensively in southern New York and northern Pennsylvania.

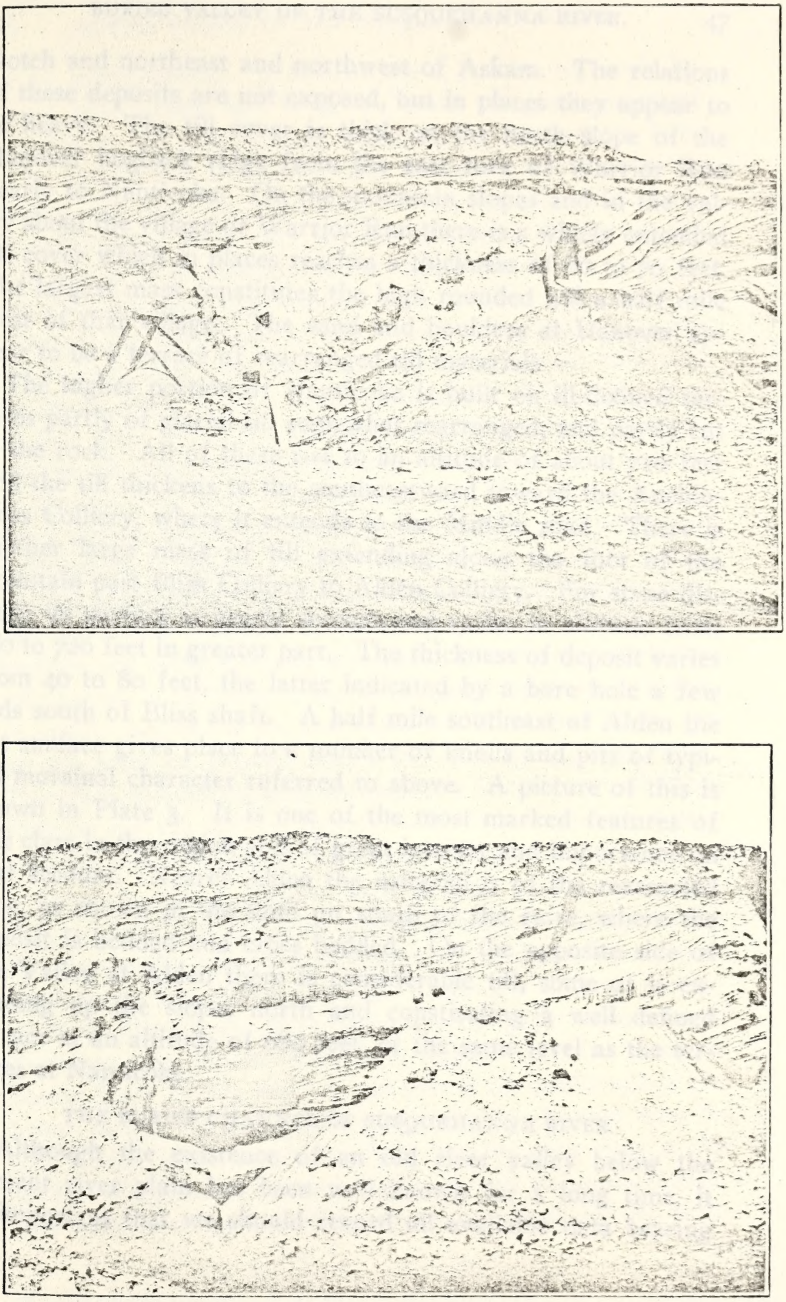
Doubtless there is considerable till under the river deposits in the old channel of the Susquehanna but nothing is known of its relations. The principal thick bodies of till observed in the Wyoming Valley region lie along the lower slopes of the mountains and on or against many of the outlying ridges. They thicken and thin irregularly and at most localities it is difficult to ascertain their thickness or relations to the underlying rock floor. One of the largest masses of this material is in the large hill at

Plains, which rises to an altitude of 810 feet above sea level. Part of the hill is rock but in places the till reaches a thickness of 60 feet. The "Laurel Line" electric railroad has a deep cut through this till a few rods north of Plains depot and although the cut is walled for some distance the character of the deposit is visible in places. It is typical glacial till, a heterogeneous admixture of gravel, sand and boulders, with some clay. The proportion of sand is about 50 per cent. A large mass of similar till lies on the high hill southwest of No. 8 Colliery, near Pittston.

At Hudson there is a thick mass of glacial till lying against the south end of the rocky ridge. It is cut deeply by the railroad grade at a point one-third mile northeast of Hudson station, revealing a heterogeneous mixture of sand, gravel, and boulders with a somewhat blue, sandy clay matrix.

There is a large deposit of material of glacial origin in the slopes east of Miners Mills and Parsons. Part of it is rearranged and in form of terraces and part is till, the latter in one locality showing a strongly pitted surface, as mentioned above. This latter feature is well exhibited at an altitude of about 670 feet at a locality about three-fourths of a mile southeast of Miners Mills railroad station.

A large amount of till mantles portions of the hills about Wilkes-Barré, although these hills consist mainly of rock which outcrops extensively. Some of the material has been rearranged to some extent, especially in the valleys and along the lower slopes of the mountain. One large hill, a half mile southwest of Franklin shaft, appears to consist entirely of till, although possibly there may be a core of rock in its center. Most of the slopes adjoining Buttonwood Creek from Maxwell colliery northward, are more or less heavily flanked with till and this mantle is especially thick in the ridges west and southwest of South Wilkes-Barré Colliery. The material here is predominantly sandy, with the proportion of sand amounting to 60 to 65 per cent. in most places. Till covers many of the high hills in the region adjoining Warrior Run, north of Sugar



Supposed till on redeposited drift just east of Empire Colliery in southern part of Wilkes-Barre. Top view, west side of terrace. Lower view, south side. Both views show inclined bedding of the drift.

Notch and northeast and northwest of Askam. The relations of these deposits are not exposed, but in places they appear to be heavy. The till cover is thick on the north slope of the Hanover hogback ridge from the east fork of Warrior Run nearly to Nanticoke. On the mountain slopes and in the valley about the village of Warrior Run there is a widely extended till cover which in places reaches a thickness of 60 to 70 feet. The largest mass constitutes the high rounded hill a half mile west of that village. The sand and boulders at Hanover appear to be a terrace of rearranged till materials.

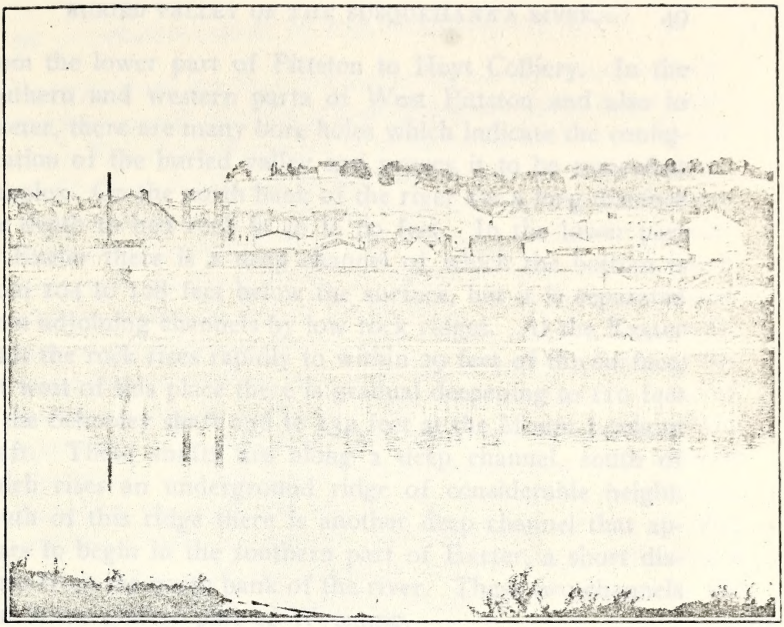
The higher portion of Nanticoke is built on ill-defined terraces partly of glacial till somewhat rearranged, and partly cut in the rock. All of these rise to an altitude of about 710 feet and the till thickens to the southeastward toward the Auchincloss Colliery, where it extends to the Middle road. There is another large mass of till extending along the foot of the mountain past Bliss Colliery to Alden Colliery. For some distance its surface is nearly smooth and varies in altitude from 680 to 720 feet in greater part. The thickness of deposit varies from 40 to 80 feet, the latter indicated by a bore hole a few rods south of Bliss shaft. A half mile southeast of Alden the flat surface gives place to a number of knolls and pits of typical morainal character referred to above. A picture of this is shown in Plate 3. It is one of the most marked features of this class in the region and of great interest and importance on that account. Nearer Alden the material is of the reassorted type, as shown in the sand pit south of the store, where the deposit is bedded and cross bedded. On the opposite side of the Valley at Alden there is considerable till, some of it extending up the slopes north and constituting a well defined terrace at an altitude of 680 feet, or the same level as the terraces at Nanticoke.

THE BURIED CHANNEL OF SUSQUEHANNA RIVER.

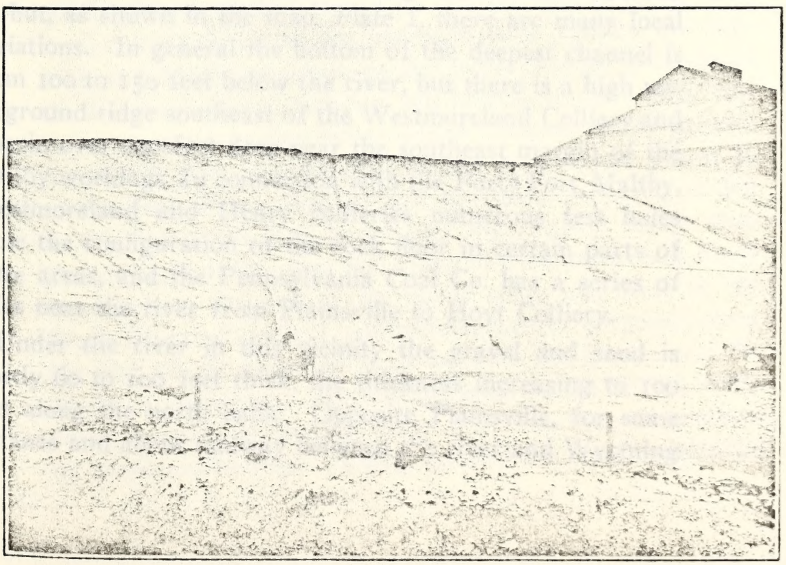
Although the existence of an old river valley below the present river plain has been well known for a long time, it is important that we should record all available data bearing

on its configuration. It is not only a feature of much interest geologically but it is a factor of great practical moment in the coal mining operations. The miners have to be careful not to extend their chambers too near to its bottom for fear of incursions of quicksand which have already caused some very serious disasters. To be on the safe side a large tonnage of coal has to be left in place in this area and most of it will never be available. In order to ascertain the conditions of this buried valley the coal companies have sunk bore holes and it is mainly from them that the maps, Plate 1, have been constructed. The lower map on that plate shows the thickness of the materials now filling the old channel, while the upper map shows the contour of the bed-rock floor. On maps of this scale and character many details have to be omitted but considerable additional information is given in the following paragraphs which present a review of the salient features of the buried channel from near Pittston to Nanticoke, as revealed by the borings and other evidence available. The channel undoubtedly begins in the hard rocks in the gorge opposite Pittston. It rapidly deepens in the soft materials in the coal basin, for at one point on Scovell Island the sand is 172 feet thick. This deep channel extends through the eastern part of West Pittston and the curving around to the west coincides nearly with the line of Wyoming Avenue to Exeter.

There is also a shallow back channel passing near the Stevens and Troy collieries separated from the main channel by a low rocky hill which underlies a considerable area just northeast of the Exeter Colliery. Under the built-up portion of West Pittston the river deposits show great variations in thickness. In general there is a regular increase from 50 feet at Clear Spring shaft to 128 feet at the north end of the lower bridge. Possibly the center of the channel may be still farther south under the river, but the rock rises to the surface along the south shore at the end of the upper bridge. The rock also appears along the south bank of the river



High terrace of gravel and sand at Pittston, Pa. View from West Pittston, with North Branch Susquehanna River in foreground.



Cross bedded sand and gravel of old high channel at Kingston No. 2 Colliery, looking west.



from the lower part of Pittston to Hoyt Colliery. In the southern and western parts of West Pittston and also in Exeter, there are many bore holes which indicate the configuration of the buried valley and proves it to be somewhat complex. On the north bank of the river for a long distance the depth to bed rock is 40 to 60 feet. In the lower part of Exeter there is a deep channel of which the bottom is from 104 to 128 feet below the surface, but it is separated from adjoining channels by low rock ridges. At the Exeter shaft the rock rises rapidly to within 29 feet of the surface, but west of this place there is gradual deepening to 110 feet at the Schooley shaft and to 132 feet at the Mount Lookout shaft. These shafts are along a deep channel, south of which rises an underground ridge of considerable height. South of this ridge there is another deep channel that appears to begin in the southern part of Exeter, a short distance from the north bank of the river. These two channels join in the eastern part of Wyoming.

The buried valley of the Susquehanna averages one and one-half miles wide from Wyoming to Forty Fort, and most of it lies on the north or right-hand side of the river. A fairly representative cross-section is given in section 2, Plate II, but, as shown in the map, Plate I, there are many local variations. In general the bottom of the deepest channel is from 100 to 150 feet below the river, but there is a high underground ridge southeast of the Westmoreland Colliery and a basin over 200 feet deep near the southeast margin of the Maltby workings. In connection with the Forty Fort, Maltby, Westmoreland and Henry collieries numerous test holes show the configuration of the rock floor in certain parts of these areas, and the Pennsylvania Coal Co. has a series of holes near the river from Plainsville to Hoyt Colliery.

Under the river in this vicinity the gravel and sand is mostly 60 to 100 feet thick, the thickness increasing to 100 feet along the north bank. Opposite Plainsville, for some distance and about midway between the river and Wyoming

Avenue, there is a deep channel in the buried valley, containing from 200 to 227 feet of sand and gravel in its deeper portions. This channel appears to extend west toward the mouth of Abraham creek, but in that district there are no borings. Next north is an underground ridge that lies a short distance south of Wyoming Avenue and extends parallel to that avenue nearly to Forty Fort. In places on this ridge the rock rises to within 80 feet of the surface. Extending south and east of the Westmoreland Colliery there is also a long, wide, underground ridge of rock that rises to within 48 feet of the surface along the railroads a half mile southeast by east of the shaft. Southwest of this ridge, and extending across the Maltby and the Forty Fort properties, is a wide channel in which the rock lies 100 to 150 feet below the surface. At the "cave", a quarter mile southeast of the Maltby breaker, the sand and gravel is 146 feet thick, indicating a deep basin which extends for an unknown distance to the southeast.

The village of Forty Fort lies on the south slope of the buried valley, the central channel of which extends just north of the D., L. & W. R. R. In this vicinity the bottom of the valley is slightly more than 200 feet below the surface. Approaching Luzerne the bed-rock rises toward the surface and finally outcrops in the creek bottom just above the Louise Colliery. Luzerne lies largely above a deep embayment of the buried valley which contains, in the greater part of its area, an extensive deposit of sand and gravel 50 to 100 feet thick. Part of this thickness, however, is due to the rise of the land in terraces considerably higher than the lowlands of the river flat. One of these terraces is finely exhibited on the end of the rocky ridge just west of the Black Diamond Colliery, and another part of it extends along the foot of the mountain slope between the Louise and the Harry E. collieries. The configuration of the buried valley from Luzerne to beyond Forty Fort has been determined by numerous borings. A large part of the area is underlain

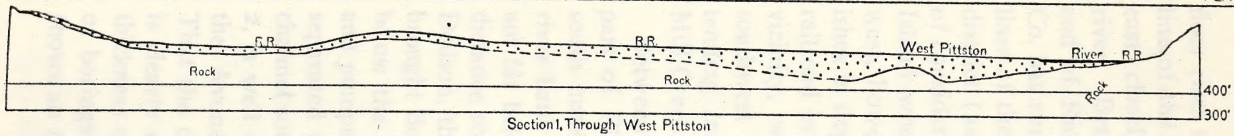
with a mantle of sand and gravel 100 to 150 feet thick, but there are several deeper basins and rock knolls underground. The deep channel north of the D., L. & W. R. R. appears to extend nearly to Bennett Street, as a bore hole on the Black Diamond Colliery, a square and a half east of that street, was sunk 224 feet before reaching bed-rock. The deepest hole reported is one 230 feet deep near the point at which the switch to the Harry E. Colliery leaves the main line. There is a rapid rise in the bed-rock a short distance south of that Colliery, and at one point it is only 37 feet of the surface. At the Harry E. shaft the thickness of gravel and sand was found to be 85 feet, while at the Forty Fort Colliery the thickness increases abruptly from 2 feet near the shaft to 81 feet a few yards east. In an old hole near Forty Fort village, about 40 rods south of the railroad, the sand is 212 feet thick, with its base 340 feet above sea level. The depth to rock gradually increases to 100 feet in the bend of the river near Forty Fort.

About Kingston the buried valley presents many complex features with islands, promontories and some notably deep channels. The deepest of these channels extends northeast and southwest just north and east of Kingston Corners, where bed-rock is slightly more than 200 feet below the surface. There is another basin-shaped depression along the D., L. & W. R. R. east of Market Street in which the bed-rock is 125 to 170 feet below the surface. West and north of this place it rises considerably, at one point coming to within 65 feet of the surface and in a rather large area extending north and east of the corner of Chestnut and Pringle streets it is less than 100 feet below the surface. The rock also rises near the corner of James Street and Wyoming Avenue, and near the corner of Rutter and James streets the depth to it is only 80 feet. South of this place to a point near the river bank there are but few bore holes. At the river bank the rock gradually rises to within 50 to 75 feet of the surface. The only boring in the upper part of Dorranceton is one near the corner of Dorrance and Railroad

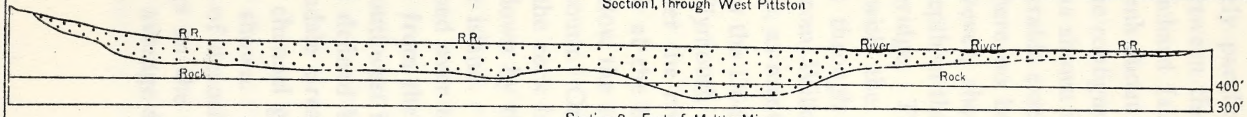
streets, where there are 163 feet of gravel, sand, and clay. This boring probably penetrates to a point near the bottom of the deep channel, which extends southwest near Luzerne depot. Farther north there is a gradual rise of bed-rock, which comes to within 52 feet of the surface near East Boston shaft.

The configuration of the buried valley southwest of Kingston has been determined in several places by borings in Woodward Colliery. These show a gradual down slope to a depth of 158 feet at a point a half mile southeast of Woodward shaft, next a rise to within 87 feet of the surface in a pronounced underground ridge under the island in the river and then a descent to 140 feet below the surface, as shown in a hole on the river drive in the northwestern part of Wilkes-Barré. Some bore holes near the Kingston boundary line at a point a half mile east of the Woodward breaker, found the bottom of the north channel to be 202 feet below the surface and this channel doubtless is the one which continues east through the central part of Kingston. The western extension of the ridge mentioned above and the depression south of it have not been traced, but to the southeastward the depression appears to be an underground extension of Mill Creek Valley, as shown in Section 4, Plate 2. The ridge next north appears to be an extension of the underground ridge of which the crest is under a point near the corner of River and West Market streets, Wilkes-Barré. The configuration of the old valley under Wilkes-Barré at the south end of Section 4 has not been proven by holes.

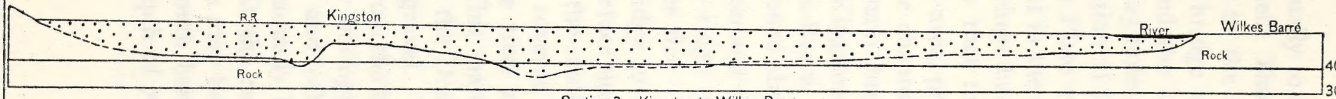
The buried valley of the Susquehanna reaches its greatest known depth at Plymouth, as shown by two bore holes of the Lehigh & Wilkes-Barré Coal Co. One of these holes passed through 309 feet of sand and gravel, and the other hole showed 302 feet of sand and gravel before reaching bedrock. These holes are shown on Section 5, in Plate 2. Borings a short distance south of these holes show, respectively, 293, 241 and 158 feet of deposits but the bed-rock



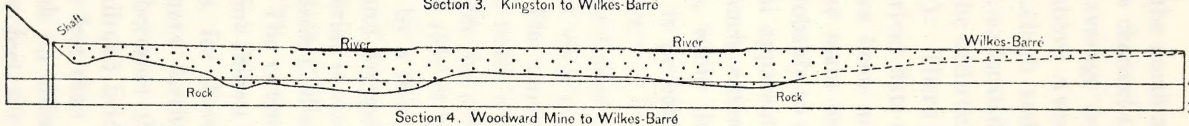
Section 1, Through West Pittston



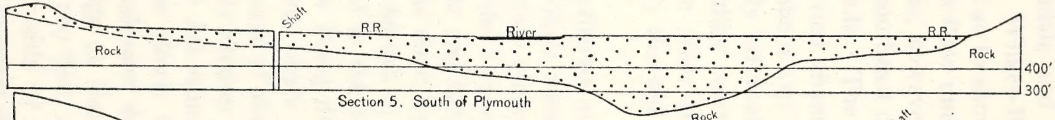
Section 2. East of Maltby Mine



Section 3. Kingston to Wilkes-Barre



Section 4. Woodward Mine to Wilkes-Barré

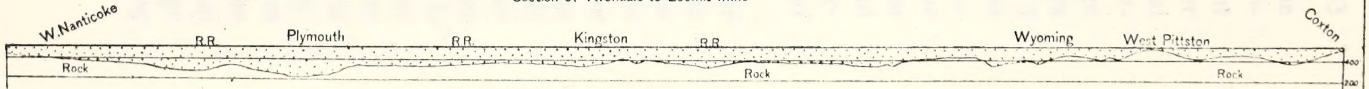


Section 5. South of Plymouth

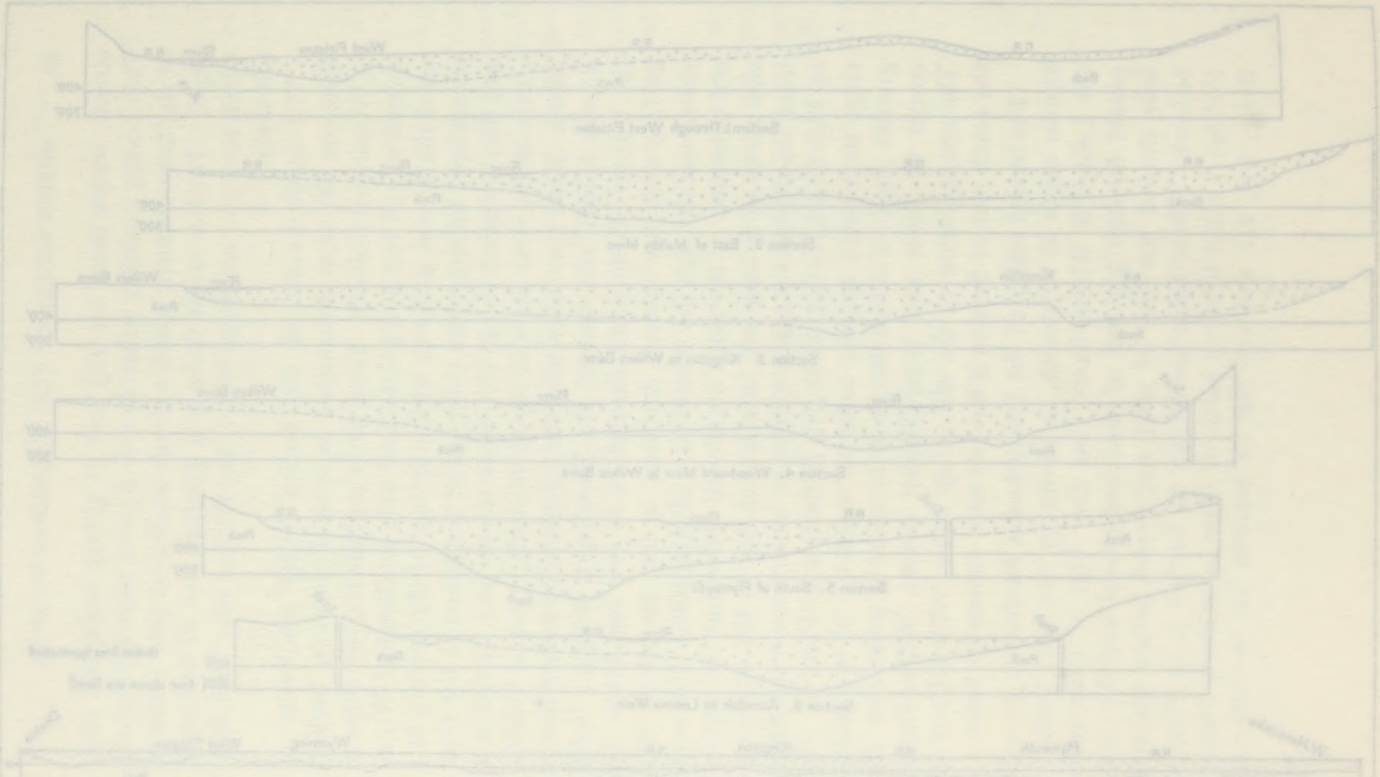
Section 6. Avondale to Loomis Mine

Broken lines hypothetical

(feet above sea level)



Section along deepest part of old valley from Coxton to W. Nanticoke



floor rises more gradually to the north and up and down the line of the old channel. This channel trends east by northeast, closely parallel to the average course of the present river. Between the bridge above Avondale and the upper end of Richard Island the Lehigh and Wilkes-Barré Coal Co. has sunk about 125 holes, so located as to show the outlines of the configuration of the bed-rock floor under a large district (as shown in Plate 1). There is, however, an area of considerable extent in the river flats southeast of Richard Island where no borings have been made. The data just west, however, show that the main buried channel diminishes in depth in this area, probably to about 150 feet at the railroad bridge. The channel apparently bifurcates in that vicinity, with the main branch extending northeast and southwest through Kingston, while the other branch, extending from Wilkes-Barré, is probably the old course of Mill Creek, as mentioned above.

Between the Dodson and the Lance collieries in the upper part of Plymouth a ridge of rock projects some distance south under the river flat. The sandstone outcrops in the river bank at the bridge just south of the Lance, and it is not far below the surface under the river and flats for some distance south. On the south side of the river, opposite the Dodson, the rock is covered by a thin deposit of coal drift brought down by the river and dropped in the slack water below the island. This material is now being dredged out and pumped over to the Dodson Colliery, where the coal is separated from the gravel. The extension of the old river channel southwest from the line shown in Section 5, of Plate 2, is well defined by borings, for there are many holes on the Avondale area and others farther down the valley. That the channel gradually becomes shallower downstream is clearly shown. At the railroad bridge at Nanticoke the thickness of deposits may be less than 100 feet, as a group of borings on the south bank on either side of the bridge shows an average depth of 70 feet, the greatest depth being

75 feet, whereas on the opposite shore there are rock outcrops. However, it is possible that there is a deep but very narrow channel under the middle of the river at this place, but when the general form of the channel is considered such a feature seems very unlikely.

The materials filling the buried valley of the Susquehanna are mainly sand, gravel and clay, with occasional boulders and boulder deposits. These materials are in sheets of varying thickness and extent and some of the deposits consist of mixtures of sand and gravel and of clay and sand in various proportions. Some of the sand is of the nature of quicksand in fine rounded grains, but this term is also applied to mixtures of sand and clay when they contain so much water that they flow as a semi-liquid. The mine shafts and the many bore holes in the valley have afforded a large number of data as to the nature and distribution of the deposits, but often there are discrepancies in reports of materials penetrated which are difficult to reconcile. In general there is so much change in the materials from one hole to another that it is impracticable to make close comparisons, but in some areas there are notable features of wide extent. The most important of these is the sheet of clay under Kingston, which has been found to underlie a district of considerable size. Its relations are shown in Fig. 1, page 41. As information regarding the materials in the valley is of importance and interest, I shall present some representative bore hole records beginning near Pittston and progressing southwestward. A hole a few rods north of Pittston Junction penetrated clay 20 feet, sand 80 feet, gravel and boulders 45 feet, and sand and coal wash 6 feet on sandy slate. About 1,000 feet further northeast there were found clay 4 feet, gravel 19 feet, sand 23 feet, and quicksand 27½ feet on soft sandrock.

In a bore hole on the west side of Scovell Island there were reported; clay 7 feet, gravel 39 feet, sand 20 feet, quicksand 34 feet, gray sand 14 feet, quicksand 8 feet, and gray sand 30 feet on shelly slate, 152 feet in all. Another

boring on the east side of the river opposite Scovell Island, showed the following deposits: Sandy clay 50 feet, hard pan 26 feet, quicksand 29 feet, gravel and sand 17 feet, quicksand 4 feet, hard gravel and boulders 3 feet, and quicksand 1 foot on sandstone, 130 feet in all. A hole 30 rods southeast of Seneca breaker revealed, gravel 12 feet, sand 7½ feet, and clay 6 feet. In the holes about West Pittston and Exeter a great variety of materials are found, including some clay and much sand. A hole three-quarters of a mile northeast of Wyoming station was reported by the Second Geological Survey as follows: Gravel 38 feet, blue clay 12 feet, sand 59 feet and sand and rock 7 feet, on sandstone.

Between Wyoming and Forty Fort the material filling the old valley presents frequent variations, but sand and gravel predominate. There is much quicksand and several local clay deposits. A record of a boring a half mile east by south of Maltby breaker, given by the Second Geological Survey, notes the following beds: Sand 6 feet, gravel 4 feet, sand 2 feet, gravel 19 feet, sand 20 feet, quicksand 15 feet, clay 46 feet, quicksand 18 feet and quicksand and clay on sandstone 14¼ feet, 144¼ feet in all.

A hole a quarter mile farther east, on Wyoming Avenue, showed 70 feet of sand and gravel, 20 feet of clay, and 73½ feet of quicksand, a total of 163½ feet. About a half mile east of the Wyoming Avenue bridge across Abraham Creek, a hole showed 50 feet of sand and gravel, 20 feet of clay, and 111 feet of quicksand on hard rock. Near the river, northwest of the lower end of Manaconock Island, one hole penetrated clay 13 feet, gravel 35 feet, brown sand 17 feet, quicksand 23 feet, and gravel 3 feet, to rock, and another hole, 25 rods farther south, penetrated clay 8 feet, gravel 31 feet, sand 10 feet, and quicksand 48 feet, to shale. An old bore hole a few rods east of the Forty Fort breaker penetrated 4 feet gravel, 5 feet sand and clay, 10 feet gravel, 9 feet 10 inches clay and gravel, 9 feet 3½ inches quicksand, 12 feet 10½ inches sand and clay, 14 feet clay, 4 feet

9½ inches coarse sand containing coal fragments, 9 feet 8½ inches quicksand, and 1 foot 10 inches coarse sand lying on a coal bed.

The materials underlying the Forty Fort area present the usual variations found in other localities, but sand, gravel, and quicksand in varying thickness predominate. There are local beds of clay near the river. Near the road forks at Forty Fort, one bore hole penetrated clay 2 feet, coarse gravel 29 feet, sand 8 feet, and quicksand 36 feet, on shale. A short distance farther southeast, on the river bank, the record was: Gravel 30 feet, clay 50 feet, and quicksand 20 feet, on soft rock. In the southern part of the village a hole penetrated gravel 58 feet, sand 6 feet, and quicksand 26 feet, on shale. Near the west end of the Port Bowkley bridge, a few rods southeast of the hole last mentioned, is a hole which penetrated gravel 30 feet, clay 30 feet, and sand 17 feet, on dark sandstone. Near the point where the branch of the Lehigh Valley Railroad crosses Wyoming Avenue, a hole 115 feet deep penetrated gravel 38 feet, sand 18 feet and quicksand 59 feet, on shale. The Tripp No. 1 bore hole, presumably located just north of the tracks and southeast of the Harry E. Colliery, was 215 feet deep. The record given by the Second Geological Survey is as follows: Sand and gravel 25 feet, quicksand 70 feet, soft clay 100 feet, gravel with water 10 feet, and boulders and broken rock 10 feet. The Tripp No. 2 bore hole, a few hundred yards farther northwest, penetrated gravel and quicksand 30 feet, quicksand 60 feet, soft blue clay 60 feet, hard bed 2 feet, hard blue clay 20 feet, soft blue clay 15 feet, and gravel 4½ feet, on soft sandstone, 190 feet in all. In a 212 foot hole, near Forty Fort and about 40 rods south of the railroad, the material was all fine mud and quicksand.

A typical section at a hole a square east of Kingston depot shows soil and loam 11 feet, gravel and sand 27 feet, blue clay 90 feet, fine sand 21 feet, and gravel and sand 9 feet, on sandstone. Another hole a few rods south of Kingston Corners, showed soil and clay 14 feet, gravel and sand

44 feet, blue clay 82 feet, fine sand 12 feet, and gravel and sand 11 feet. This succession appears to be general under Kingston, notably in having the widespread sheet of clay which is over 100 feet thick at the corners of Chestnut and Maple and Chestnut and Hoyt streets. The relations of this great clay sheet along the northwest to southeast section through Kingston are shown in figure

Fig. 1. Section through the eastern part of Kingston, Pa., showing relations of great sheet of blue clay in the deposits filling the buried valley.

THE OLD CHANNEL OF NEWPORT CREEK.

The deep, narrow, sand filled basin or trough in Newport Creek Valley was described by Ashburner (*a*) in 1885 and its configurations was shown by Griffith (*b*) in 1909.

Later borings by the Susquehanna Coal Company have added some very important facts, especially as to conditions north of shaft No. 2, where it appears that there is a rapid rise of the floor of the old valley instead of a continuous downgrade as previously supposed. These data are shown in Fig. 2, and on Plate 1. In Fig. 2 are given sections showing the relations of the sand deposits as far south as Stearn's shaft. This valley differs from that of the Susquehanna in containing a relatively wide area of high terrace deposits rising high above the creek, as shown in sections B and C.

Fig. 2. Sections across Newport Creek Valley above Nanticoke, showing relations of sand and gravel deposits (dots). A. Through shaft No. 2; B, through the cave-in; C, 3,200 feet west of cave-in; D, across Stearn's lots. The figures show altitude above sea level. (S. C. Co. altitudes, plus 11½ feet.)

The deposit in this valley is more than 250 feet thick in places, with its base nearly 150 feet below the bed of the creek and its top constituting a high terrace which originally occupied the entire valley. The greatest width is nearly

(*a*) Second Geological Survey Report for 1885, pp. 627-636.
(*b*) Wyoming Valley Historical and Geological Society, Proc., Vol. 6, pp. 27-36.

one-half mile at a point about a half mile above Nanticoke. Near shaft No. 2 the width of deposit remaining in the valley is only 1,600 feet and bed rock is only 82 feet below the creek bed. The thickness also diminishes to the southwest but the deposits extend to beyond Glen Lyon. They thicken locally near this place, for near the Catholic Church the depth to bed rock is 109 feet. The material in Newport Creek valley is largely sand, with scattered gravel deposits and boulders. Some portions are so fine grained as to be classed as quicksand.

BURIED VALLEY OF LACKAWANNA RIVER.

The lower part of the course of Lackawanna river is on a buried valley extending from the upper part of Duryea to the mouth of the river where it is confluent with the old valley of the Susquehanna. The distance is nearly three miles from the point where rocky reefs cross the Lackawanna river at the Luzerne-Lackawanna county line to the deepest part of this buried valley at a point just east of Scovell Island. The thickness of deposit at the latter place is 151 feet, which indicates a fall in the old channel of about 50 feet to the mile. The old valley is more than a half mile wide for most of its course. Many test holes have been bored by various coal companies operating in the area. Bore holes in the river flat near Halstead Colliery shown from 40 to 90 feet of gravel and sand, but there are places in which the rock rises to within 15 feet of the surface, locally. Northwest to the Phoenix Colliery the valley deepens gradually and merges into a long basin extending to the Susquehanna river at Scovell Island. Here the deepest channel lies a short distance north of the present Lackawanna river but from Duryea to the river mouth the rock is from 60 to 100 feet below the river. In the deepest channel the depth to rock varies from 100 to 150 feet, there being a nearly regular down grade in most parts of its course but doubtless there are deeper local basins as in the other buried valleys.

The materials under this part of Lackawanna Valley vary

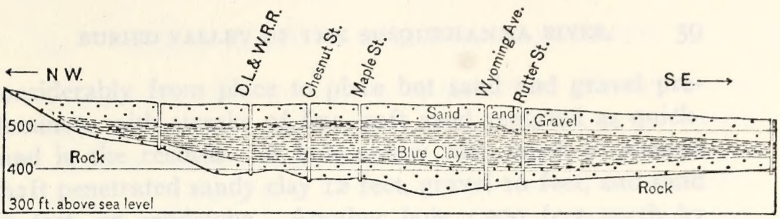


Fig. 1. Section through the eastern part of Kingston, Pa., showing relations of great sheet of blue clay in the deposits filling the buried valley.

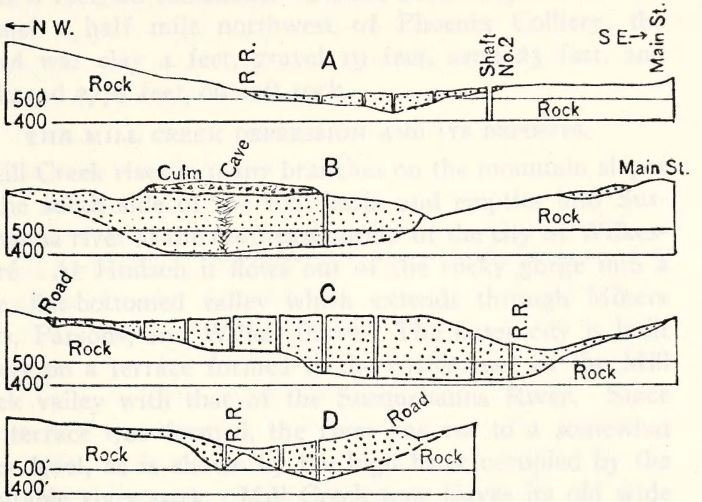


Fig. 2. Sections across Newport Creek Valley above Nanticoke, showing relations of sand and gravel deposits. (Dotted pattern.) A. Through shaft No. 2. B. Through the cave-in. C. 3,200 feet west of cave-in. D. Across Stearns lots. The figures show altitude above sea level (S. C. Co. altitudes, plus 11½ feet.)

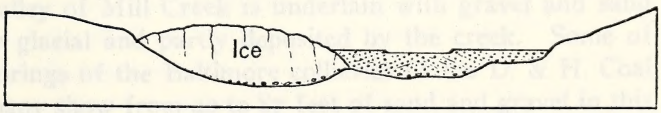


Fig. 3. Sketch section across coal basin, showing general relations of soft rocks of coal measures CM, to hard underlying Pottsville—Pocono rocks. Buried valley shown by dots BV.

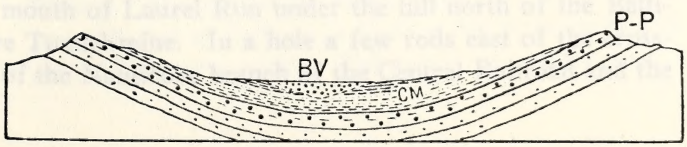
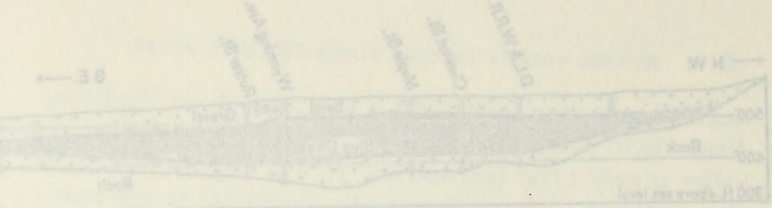
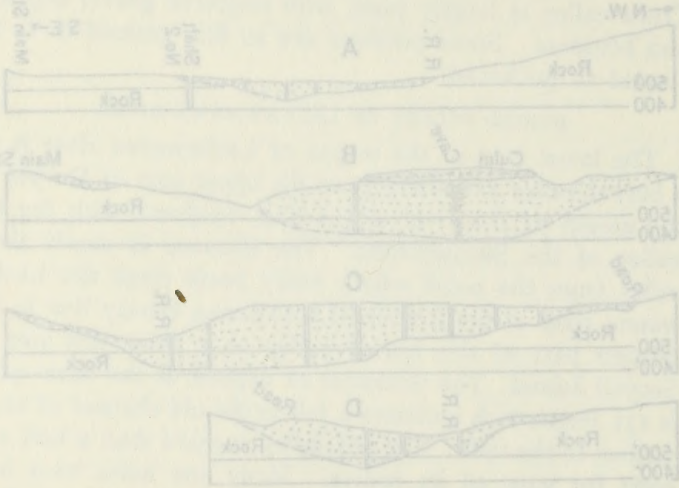
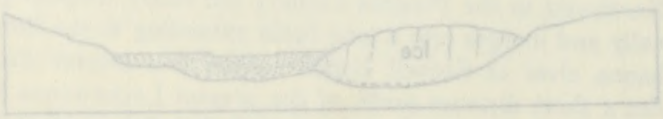


Fig. 4. Ideal section of Wyoming Valley during retreat of ice of Glacial Epoch, showing conditions of sand and gravel deposition in side valley. (The width of latter considerably exaggerted.)









considerably from place to place but sand and gravel predominate with streaks of fine, soft sand reported as quicksand in the records. A hole a few rods north of Seneca shaft penetrated sandy clay 12 feet, gravel 10 feet, and sand 59 feet, on sandstone. Another hole 1,200 feet north by west of Pittston Junction penetrated clay 20 feet, sand 80 feet, gravel and boulders 45 feet, and sand with coal fragments 6 feet, on sandstone. On the north slope of the old channel a half mile northwest of Phoenix Colliery, the record was clay 4 feet, gravel 19 feet, sand 23 feet, and quicksand 27½ feet, on soft rock.

THE MILL CREEK DEPRESSION AND ITS DEPOSITS.

Mill Creek rises in many branches on the mountain slopes on the south side of the coal basin and empties into Susquehanna river at the northeast corner of the city of Wilkes-Barré. At Hudson it flows out of the rocky gorge into a wide, flat-bottomed valley which extends through Miners Mills, Parsons, and Wilkes-Barré. The latter city is built largely on a terrace formed at the coalescence of the Mill Creek valley with that of the Susquehanna River. Since this terrace was formed, the river has cut to a somewhat lower level, as is shown by the high bank occupied by the admirable river park. Mill Creek now leaves its old wide valley at the north margin of the city and flows to the river in a short rocky gorge, a feature of relatively recent geologic origin.

From Hudson to and through Wilkes-Barré the broad, flat valley of Mill Creek is underlain with gravel and sand partly glacial and partly deposited by the creek. Some of the borings of the Baltimore collieries of the D. & H. Coal Company show from 40 to 87 feet of sand and gravel in this valley. At Pine Ridge shaft 44 feet are reported, at Hollenbeck shaft 30 feet, and at Baltimore tunnel 51 feet. The thickest body occupies a channel extending southwest from the mouth of Laurel Run under the hill north of the Baltimore Tunnel mine. In a hole a few rods east of the crossing of the Nanticoke branch of the Central Railroad and the

Hazleton Railway the sand is 90 feet thick. The bottom of this buried valley rises somewhat near the Hollenback shaft where the sand is only 30 feet thick, but it is much deeper under the greater part of the level portion of Wilkes-Barré. Few borings have been made in the old city area, but probably the sand and gravel is moderately thick throughout. The only definite record I could secure is that of the hole for the elevator plunger at the Second National Bank, where the depth to bed-rock is reported to be 62 feet. In Mill Creek valley the sand and gravel lie mostly below the creek level but several higher terraces border the valley, notably at Hudson, Miners Mills, Baltimore No. 2 shaft, and a quarter mile east of Empire shaft.

A large mass of till and terrace deposit lies on the slope and ridge east and northeast of the village of Miners Mills. Its upper part consists of a delta of Mill Creek at an earlier stage of valley development. This deposit contains a large proportion of coarse sand and extends nearly a mile north over a low divide into the valley of the south fork of Mill Creek, but this higher part may not be very thick. The sand has been dug to some extent in pits behind Miners Mills. The south end of this terrace extends into the east end of Parsons, but it is finally cut off by the valley of Laurel Run, which reveals rock down to the main road. The high hill lying north of the Baltimore Tunnel mine consists largely of till.

One of the most interesting occurrences of Quaternary deposits exposed in the Wilkes-Barré region occupies part of the shallow valley a short distance northeast of Empire shaft near the line of East Market Street (extended). It consists of a remnant of terrace constituted largely of sand in inclined beds capped by a thin mantle of gravel and sand, apparently a glacial till. There are excellent exposures in several deep sand pits, two views of which are shown in Plate 4. The sand is in layers, some fine, others coarse and gravelly, and all inclined, a feature due to deposition by currents of running water. The gravel cap varies from 2 to 4

feet thick in greater part and is distinctly separate from the underlying formation. Its surface is so smooth that a water lain terrace deposit is suggested, but the material is such a heterogeneous mixture of boulders, gravel, sand and clay that it appears to be glacial till. The sand is part of the system of marginal terraces, or kameterraces as they have been termed, doubtless deposited when a lobe of the retreating glacier occupied the deeper part of the valley, as shown in Fig. 4. The overlying till probably was deposited by the glacier during a brief re-advance down the valley.

TERRACE AT PITTSTON.

The high sand and gravel terrace at Pittston is one of the most notable features in the Wyoming Valley. Its top is about 130 feet above the river and it presents a steep front to the north, as shown in Plate 5. Its surface is very smooth but its continuity is interrupted by several deep gullies, one of which is followed by the "Laurel Line" electric railroad. To the south and east it abuts against slopes of the coal measure rocks which rise into rounded hills of considerably greater height than the terrace. Its extent north and south is about one and one-half miles. The materials in this terrace are mainly bedded and cross-bedded sand containing more or less gravel admixture. In the central part of the area the deposit attains a thickness of 121 feet, as shown by the profile of the drainage tunnel of the Pennsylvania Coal Company. It lies in an irregular rock surface rising to the south, east and north but descending nearly to the level of the river in the central part of Pittston. An extensive sand pit near the Laurel Line and Erie depots shows the nature of the terrace deposit. Here it is sand with gravel streaks and the beds are inclined to the northeast.

TERRACES ALONG THE NORTHWEST SIDE OF WYOMING VALLEY.

There are several thick masses of sand and gravel along the lower slopes of the mountains on the northwestern side of Wyoming Valley, and, while some of them are till, others consist in whole or part of rearranged materials and are true kame-terraces. The most notable of these is in the wide

depression southwest of Edwardsville, where the remains of a terrace with smooth surface extends from Kingston No. 1 Colliery nearly to Plymouth No. 3 Colliery. Its altitude is between 680 and 700 feet, or 160 feet higher than the river from which it is separated by the high ridge behind Woodward Colliery. The material is sand and gravel lying in an irregular floor of the coal measures but having a thickness of 100 to 115 feet in an area of considerable extent. There are excellent exposures of the sand in large pits at Kingston No. 1 breaker, as shown in Plate 5. The material is largely in beds, some containing much gravel, and all dipping to the northward. The deposit was laid down by a stream of considerable size, possibly Toby Creek, flowing along the foot of the mountain probably in late glacial times. Portions of an extension of this terrace occur on the slopes in the western part of Plymouth at altitude of about 700 feet. Other small portions may perhaps be represented on the end of the ridge west of Luzerne and in the southern part of Edwardsville.

There are well defined terraces at Luzerne on both sides of Toby Creek valley rising to elevations of 560-630 feet in greater part, which appear to be deltas of the creek, probably deposited towards the end of the Glacial Epoch.

THE ORIGIN OF THE BURIED CHANNELS.

The buried channel of Susquehanna river, as well as some other similar features in the region, are somewhat difficult to explain satisfactorily. The channel is not an ordinary valley with continuous declivity, but, as shown by the lowest section in Plate 2, it contains elongated rock-rimmed troughs and basins which could not have been eroded by stream action as suggested by some previous observers. It is probable that the rock is at no great depth below the present river bed a short distance below Nanticoke, and, even if this is not the case, ledges cross not very far southwest. Deformation of an ordinary river valley since the valley was developed, as suggested by Lyman[1] and Corse[2], is out of the

[1]Philadelphia Acad. Sci. Proc., Col. 54, pp. 507-9.
[2]Proc. of this Society, Vol. 8, pp. 42-44.

question, for there are too many small depressions and ridges to be accounted for. Probably in early glacial time the valley was excavated considerably below the present water level but the precise depth at that stage can only be surmised. In Fig. 3 is shown the general structure of the Wyoming Valley, a synclinal basin with a thick mass of relatively soft coal measures lying on the harder rocks.

Fig. 3. Sketch section across coal basin showing general relations of soft rocks or coal measures CM, to hard underlying Pottsville-Pocono rocks. Buried valley shown by dots BV.

A stream flowing out of the mountains north and having sufficiently low outlet to afford declivity would naturally excavate a deep channel along this valley in the axis of the syncline. It could not, however, excavate materially below its mean grade, that is, there would be no very deep basins or holes in its course. However, when the glacier advanced southward it crossed this valley diagonally and probably picked up a large amount of soft material from its bottom. At this stage and later sub-glacial streams also would have the tendency to deepen such holes and basins in the valley bottom. Accordingly it is believed that the basins and troughs in the bottom of the old valley were excavated in by the glacier. Later a large amount of sand and gravel were brought into the region by glacial agencies, and by the river when it resumed its flow, and by these means the valley was filled to its present level. Owing to some cause there was diminished declivity in this later epoch or the river would have cleared out the materials down to its original gradient. As it is, the filling has continued and it is now in progress, for deposition is in excess of erosion, and, at times of great freshets, a widespread sheet of mud is laid in the lower lands bordering the river.

The buried valleys of Mill Creek and Newport Creek, with their deep basins, are to be explained in the same manner as that of the river. Mill Creek has had an interesting history, for not so very long ago, geologically, it emptied

into the river on the southwestern part of Wilkes-Barré. This is shown by the continuity of its old valley through the central part of the city. Later it was tapped off by a small stream cutting back through the ridge east of Prospect Colliery and it now flows to the river through a short rocky gorge.

ORIGIN OF THE HIGH TERRACES.

The origin of the high terraces which occur at intervals along the lower slopes of the mountains on either side of the Wyoming Valley is a problem of considerable interest. It is not reasonable to believe that they are remnants of a filling which once occupied the entire valley and has been mostly removed by erosion, and they could not be the product of great floods which deposited on the valley sides but swept their channels clear. They appear to have been deposited in very nearly their present general form when the glacial ice was receding and filled only a portion of the Valley. Under this condition streams flowing along the side of the ice would carry till from the slopes and deposit it in places along the sides of the Valley. This condition is outlined in the ideal section, Fig. 4, which shows a lobe of the retreating ice with the channel of a stream flowing along its side and depositing gravel and sand. Such features have been termed kameterraces.

Fig. 4. Ideal section of Wyoming Valley during the retreat of the ice of the Glacial Epoch, showing conditions of sand and gravel deposition in lateral valley. (Note—The width of the latter is considerably exaggerated.)

The great terrace at Pittston and other minor ones along the Valley doubtless had their origin in this way. The terraces in Mill Creek valley and other similar depressions were of like origin. The terraces at Luzerne are mostly part of deltas of Toby Creek as it entered the ice filled valley and the high terrace southwest of Kingston was deposited by a stream, possibly Toby Creek, which passed behind the Woodward Mine hill when the main valley was filled with ice.

THE PROOF THAT PENNSYLVANIA ANTHRACITE COAL WAS FIRST SHIPPED FROM WYOMING VALLEY.

By William Griffith, C. E.

Member of the Wyoming Historical and Geological Society.

It seems to be about as difficult to break statisticians away from their old statistics, even after pointing out the inaccuracies, as it is to break an old dog of his old tricks. The published statistics of the beginnings of the anthracite coal trade are wrong, and have always been wrong, for they credit the beginnings of the coal trade to the shipments from the Mauch Chunk district in 1820. As early as 1870, the Hon. Hendrick B. Wright, of Wilkes-Barré, endeavored to secure a correction of these erroneous statistics. He was followed by George B. Kulp., Esq., of Wilkes-Barré, in 1890, and subsequently, at various times since, other writers have called attention the error. Nevertheless, we still find the old tabular statistics prepared years ago by Mr. P. W. Shaefer, of Pottsville, reprinted without change, not only by the Bureau of Anthracite Statistics, a commercial organization of New York, but by the United States Geological Survey. Mr. Shaefer evidently was ignorant of, or ignored facts that had been transpiring in the Wyoming region previous to and for some years after the beginnings of the trade in the Lehigh district, and he therefore credited the first shipments from this district, in 1829, as 7,000 tons, and in 1830, with 43,000 tons; surely a surprisingly large output for the first beginnings.

The anthracite coal trade of Pennsylvania, as is well known locally, was begun by the firm of Abijah Smith & Co., at Plymouth, in 1807, and continued during 1808 to

1830. It followed the now historic experiment of Judge Fell, February 8, 1808, which brought prominently into notice throughout the Wyoming Valley the utility of anthracite coal as a domestic fuel, thereby furnishing a foundation for an extensive domestic trade in this product.

The Wyoming Historical and Geological Society was established February 8, 1858, on the Fiftieth Anniversary of this experiment, partly for the purpose of commemorating the event; and as this foundation of the great anthracite coal trade of Pennsylvania is the rock upon which the Society was erected, it is exceedingly desirous that historical facts relating to the beginning of this trade should be correctly stated in publications relating to the same. It has therefore taken upon itself the task of endeavoring to correct, in so far as possible, the published statistics with reference to the beginning of this great industry; and for this purpose there is herewith printed the various historical facts in the possession of the Society which show the genesis of the anthracite coal trade. In order to place them concisely before the reader, it may not be inappropriate for us here to give a very condensed chronological resumé of the facts, which are as follows:

First. The existence of coal in this Valley was known to the Indians.

Second. It was used about 1769 or 1770, by Obadiah and Daniel Gore, in blacksmith forges, and later, in 1788, by Jesse Fell, in a nailery, located near Wilkes-Barré.

Third. In 1775 it was mined on the shores of the Susquehanna, shipped to Harrisburg, and thence transported to Carlisle, for manufacture of firearms.

Fourth. In 1808 occurred Judge Fell's test of burning the coal in an open grate; and also the beginning of the Anthracite Coal Trade by the opening of mines and shipments of Coal by Abijah Smith & Bro., at Plymouth, 1807 and 1808.

Other mines were opened in various parts of the Valley, and many shipments made from time to time, sufficient to form a continuous and prosperous coal trade, shipping in Coal Arks down the Susquehanna River until 1830.

While this was going on in the Northern field, Messrs. Miner, Cist and Robinson, of Wilkes-Barré, conceived the idea of embarking in the same business by way of the Lehigh River, with Mauch Chunk as the shipping point, using the Lehigh coals from Bear Mountain nearby. Their shipments were by boat down the Lehigh River, and after many unsuccessful attempts, some of the coal reached Philadelphia, and was there successfully burned by White & Hazzard at their iron works on the falls of the Schuylkill, 1814. These gentlemen, being convinced of its usefulness, subsequently secured a lease of some 10,000 acres at a minimum rental of "one ear of corn per year, if demanded," and, being energetic business men, they secured the improvement of the Lehigh River, organized the Lehigh Coal & Navigation Co., and inaugurated the coal trade from Mauch Chunk, with a first shipment in 1820, of 365 tons.

The statistics of the beginnings of the coal trade from the Wyoming and Lehigh regions given by Mr. Kulp as being probably correct, are as follows:

Wyoming Region		Lehigh Region	
1807	55 tons	.....	
1808	150 tons	.....	
1809	200 tons	.....	
1810	350 tons	.....	
1811	450 tons	.....	
1812	500 tons	.....	
1813	500 tons	.....	
1814	700 tons	.....	
1815	1000 tons	.....	
1816	1000 tons	.....	
1817	1000 tons	.....	
1818	1000 tons	.....	
1819	1400 tons	.....	
1820	2500 tons	1820	365 tons

After 1820, shipments from the Wyoming region were continuously and rapidly increased by way of the Susquehanna River until the opening of the Delaware & Hudson Canal in 1829 and the Pennsylvania Canal in 1831.

The above facts will be found set forth more at length below, and although records giving the amounts of the annual shipments from the region are meager, nevertheless, the statistical tables should be corrected as to the beginnings of the anthracite trade, and the Wyoming region credited with its early shipments and thus rightfully placed before the country as the birthplace of the anthracite coal trade, thus avoiding the perpetuation of a falsehood.

In March, 1870, the following letter from the Hon. Hendrick B. Wright, of Wilkes-Barré was forwarded to and published in the New York Tribune:

"THE BEGINNING OF THE ANTHRACITE TRADE.

"To the Editor of the Tribune.

"Sir: I wish, through you, to vindicate history, as to the commencement of the Anthracite coal trade. The statistical tables, heretofore published, represent the coal trade as beginning in 1820, with a shipment that year of 120 tons by the Lehigh and Delaware Rivers to Philadelphia. I inclose herewith an Account Current of Messrs. Price, Waterbury & Co., of New York, of Feb. 1, 1813, with Messrs. Abijah Smith & Co., of Plymouth, in this county, five miles below Wilkes-Barré, I having the receipts of two cargoes of coal, its sale, and the names of the purchasers. This coal descended the Susquehanna in arks to Baltimore, and thence by sea to New York. As this Account Current is an ancient paper, and contains the names of some of the early New York merchants, I hope you may have the space to publish it entire.

"Abijah and John Smith, from Bridgeport, Conn., were the pioneers of the coal trade. They came to this Valley in 1808, and from that time they yearly mined and sent coal to market till their respective deaths. Abijah died probably about 1826, and John several years afterward. I knew

them both well, as for the first two years after coming here, they boarded with my father, who resided near their mines. One of the same mines I now own.

"The mineral, in their deeds of purchase, is described as "pots of coal." While coal had been used here for smith purposes, before 1808, it had not been sent elsewhere. Judge Jesse Fell, of this place, is entitled to the merit, that same year, of the discovery of burning it in a grate without an air blast.

"You will thus see that the commencement of the coal trade was, some time before 1820, as the present tables exhibit. I address this note to you, knowing, as well as appreciating your care and attention, in selecting and preserving statistics of the trade, business, and general events of the country, and in the hope that so important a matter as the coal trade may be properly registered, I am, sir, your very obedient,

"HENDRICK B. WRIGHT."

"Wilkes-Barré, Penn., March 23, 1870."

"NEW YORK, Feb., 1813.

"Messrs, Abijah Smith & Co—Gentlemen: Having lately taken a view of the business we have been conducting for you this some time past, we have thought it would be gratifying to have the account forwarded, and, therefore, present you with a summary of it up to the 18th January, 1813, containing, first, the quantity of coal sold and to whom; second, the amount of cash paid by us from time to time; third, the amount of interest, cash on the various sums advanced, the credit of interest on sums received, and, lastly, the quantity of coal remaining on hand unsold.

"Should you, on receipt of this, find any of the items incorrect, we need hardly observe that the knowledge of such an error will be corrected with the greatest of pleasure. As it respects future place of procedure, we shall expect to see one of your concern in the city sometime in the Spring, when a new arrangement may be fixed upon. Our endeavors to establish the character of the coal shall not at any time be wanting, and we calculate shortly to dispose of the remaining parcels of coal unsold.

1812

June 8. By cash of Doty & Willets for 5 chaldrons coal $100.00
By cash of John Withington for 5 chaldrons coal 100.00
By cash of Coulthaid & Son for 10 chaldrons coal 200.00
By John Benham's note (60 days) for 10 chaldrons coal do 200.00
By cash of G. P. Lorrilard for 1 chaldron coal 20.00
June 13. By cash of J. J. Wilson for 4 chaldrons coal 80.00
By cash of Doty & Willets for 5 chaldrons coal 100.00
By cash of G. P. Lorilard for 11½ chaldrons coal 230.00
By A. Frazyer's note (90 days) for 25 chaldrons coal 475.00
By cash received of T. Coulthard for 5 chaldrons coal 100.00
By M. Woma's note (90 days) for 20 chaldrons coal 380.00
By half measurement, received for 1,620 bushels 6.33
By B. Ward and T. Blagge for 1¼ chaldrons at $20..... 25.00
By Wittingham for 1½ chaldron coal.... 10.00
June 25. By Pirpont for ½ chaldron coal..... 11.00
By Mr. Landz for ½ chaldron coal..... 12.00
July 16. By Robert Barney for 17½ chaldrons coal at $22 per chal..... 385.00
Sept. 15. By cash for ½ chaldron coal 12.50
Oct. 9. By William Colman for ½ chaldron coal.. 12.50
By Sexton & Williamson for 1½ chaldrons coal 37.50
Oct. 24. By cash for 1 chaldron coal..... 25.00
Oct. 29. By cash for ½ chaldron coal..... 12.50
Dec. 5. By cash for ½ chaldron coal..... 12.50
Dec. 11. By cash of A. Dally for ½ chaldron coal. 12.50
Dec. 14. By cash for ½ chaldron coal 12.50

1813.

Jan. 4. By cash for 1 chaldron coal..... 25.00
Jan. 18. By J. Curtiz for 9 bushels coal 6.27
By amout of balance this day..... 763.12

Total $3,691.20

Errors expected. PRICE & WATERBURY."

The letter from Messrs. Price & Waterbury has apparently escaped the attention of all coal statistics and writers. It was printed in Col. H. B. Wright's History of Plymouth, Pa., in 1873, pp. 323-325; also reprinted by George B. Kulp, Esq., on page 16 of his paper, entitled "Coal, Its Antiquity, Discovery and Early Development in the Wyoming Valley." This paper was prepared for and read before the Wyoming Historical and Geological Society June 27, 1890, and published by the Society in 1892. The letter was also published by William Griffith, C. E., Curator of this Society, in his exhaustive paper on "Anthracite Coal" in the "Bond Record" for 1896, Vol. IV, page 4.

It is remarkable how historical facts so specifically stated as the above could have been so entirely overlooked by all writers on the subject of the early shipment of Anthracite Coal for fully twenty-three years. It must have been the result of careless investigation, and of taking, too much for granted, second hand authorities.

However, the facts stated in this paper prove most conclusively that Pennsylvania Anthracite Coal was first shipped from the Wyoming Valley in 1807, and continued to be shipped from that section without fail until the present time, for a period of one hundred and six years.

** A "Chaldron" is defined by the Standard Dictionary as "A weight or measure, used chiefly for coal and coke of varying amount in England, generally 32 to 36 bushels, and in the United States, 2,500 to 2,900 pounds." A Newcastle chaldron is a measure of 53 cwt."

VITAL STATISTICS, WYOMING, PENN'A, NO. 3.

MARRIAGE CERTIFICATE OF AMOS FELL OF WYOMING TO ELIZABETH JACKSON.

Early marriage certificates, especially those of the Friends or Quakers, are rare even in Pennsylvania. There is a quaintness and simplicity in them and a fullness of record which the rapid methods of living in our time do not encourage. In the last volume of Proceedings, Volume XII, page 154, the certificate of Asher Miner to Mary Wright, both of Wilkes-Barre, 1808, was presented. Below we give the marriage certificate of Amos Fell, brother of Judge Jesse Fell, of Wilkes-Barre. He was born in Bucks county, Penn'a, 1762. He married Elizabeth Jackson, of Shrewsbury, New Jersey, 1784, and in 1785 bought a farm of 600 acres in Pittston township, Luzerne county, where he died in 1825. He was the great grandfather of Judge Daniel Ackley Fell of the Luzerne county bench, of the late Dr. Alexander G. Fell, a prominent physician of Wilkes-Barre, both brothers being members of this Society; and the grandfather of Miss Phebe Ann Fell, who was the wife of Caleb Earl Wright, Esq., for many years a member of the Luzerne county bar, and an author of note. The third column of names are those of the bride and groom, the parents of the groom and his brothers and sisters.

Whereas Amos Fell Son of Thomas Fell of Buckingham Township Buck's County in Pennsylvania and Elisabeth Jackson Daughter of William Jackson of Shrewsberry Township East Jersey having declared their Intention of Marriage with each other before several Monthly Meetings of the People called Quackers at Buckingham aforesaid according to the good Order ufed amongst them & having the Consent of Parents & Relations concerned their said Proposals of Marriage were allowed by the said Meeting—

Now theſe are to certifie all whom it may concern that for the full Accomplishment of their said Intentions on the tenth Day of the eleventh Month in the Year of our Lord one thousand seven hundred and eighty four they the said Amos Fell & Elizabeth Jackson appeared in a public Meeting of the said People, at Buckingham aforesaid & the said Amos Fell taking the said Elizabeth Jackson by the Hand did in a solemn manner openly declare that he took her to be his Wife promising with the Lords Aſsistance to be unto her a loving and faithful Husband untill Death should seperate them (or Words to that Purpose) and then & there in the same Aſsembly the said Elisabeth Jackson did in like manner openly declare that she took the said Amos Fell to be her Husband promising with the Lords Aſsistance to be unto him a loving & Faithful Wife untill Death should seperate them (or Words to that Effect.)

And moreover they the said Amos Fell & Elisabeth his Wife she according to the Custom of Marriage aſsuming the Name of her Husband as a further Confirmation there of did then & there to these Presents set their Hands—

And we whose Names are hereunder also subscribed being present at the Solemnization of the said Marriage & Subscription thereof have as Witneſses thereunto set our Hands the Day & Year above written—

John Balderston
Ruth Bradſhaw
David Bradſhaw
Elizabeth Bradſhaw
Rebekah Wilson
Ann Preston
Isaac Wilſon.
Abraham Pugh.
David Stackhous.
Thomas Lloyd
Joseph Burges
William Burges
Thomas Fell.
Grace Fell.
Elizabeth Packer.
Mary Kinsey
Rebekah Penington
John Gillingham.
Anne Jackson
Joſeph Wilson
Abigail Tilton.
William Jackſon.
William Preſton.
Stephen Wilson.
Elſabeth Preſton

Rachel Fell.
Hannah Wilson.
Joſ Pickering.
Hannah Hill.
Rachel Perry
John Kinsey.
Jo^{s} Simpson
John Brown
John Bradfield
Rachel Kirk
Sam^{l} Fell
Joſiah Brown
Deborah Brown.

Amos Fell
Elizabeth Fell.
Thomas Fell.
Jane Fell.
Joſeph Preſton.
Rebekah Preſton
Jeſse Fell.
Hannah Fell.
Abi Fell.
Ann Fell.
Joseph Fell.
Sarah Fell.
Jonathan Fell
Elizabeth Fell.
Rachel Percy.

SOME MODERN VIEWS OF THE FEDERAL CONSTITUTION.

By Professor John L. Stewart, Ph. B.,
Professor of History, Lehigh University.

READ BEFORE THE WYOMING HISTORICAL AND GEOLOGICAL SOCIETY, NOVEMBER 10, 1911.

(AUGUSTUS C. LANING HISTORY FUND.)

Mr. Chairman, Ladies and Gentlemen:

The Secretary of the Historical Society invited me to speak to the Society last spring and it was my pleasure to accept. He said he wanted a general contribution to American History and he furthermore limited me in the period in which I could be original to anywhere in the past one hundred and fifty years. I don't know whether the design was that I was not to walk over ground that was worn by recent footsteps, or fall through to molten lava and touch very serious questions, but a man might speak on very ancient historical topics and touch raw nerves to-day.

Two years ago, I think it was, one of the German professors at Bonn was writing of Caligula, a Roman Emperor—there was absolutely not a suggestion in it that had any present day reference. Within three months he had been arrested for treason because in his whole study of the character of Caligula the Emperor of Germany and his advisors made up their minds that he was intending to put the German Emperor in the position of the famous Roman Emperor. There is always a danger that some one may be inclined to make inferences not justified in the treatment of a topic.

So to-day in our history I am not going so far back as one hundred and fifty years, but am going to take up a topic in American History that has always interested me very much, and about which very little so far has been written because, curiously enough, the study of the effects on the Constitution of the industrial and economic development

of America has not been very widely taken up; and furthermore the effect on the Constitution of the development of new legal doctrines has been very little considered.

One of the greatest of American Historians was Von Holst, probably the keenest student of American History, who said when this point was raised that America was simply consumed with idolatry of the Constitution. The average man did not know what was in the Constitution, but he was convinced that whatever had been put into it was like that which the Fates delivered to the Senate, the circle was complete, there was nothing more to be said and it was passed by.

You remember back in 1889 when we were celebrating the adoption of the Constitution there was a significant quotation, widely used, from Gladstone, that the Federal Constitution was "the most, to him, remarkable work produced by the human intellect at a single stroke (so to speak) in its application to political affairs." The implication was that it was formed spontaneously in the Constitutional Convention of 1787. As a matter of fact, when those men met in the city of Philadelphia in the Spring of 1787, they came there to consider one of the most pressing problems that ever confronted a civilized community. Facing anarchy the fact is that the fruits of the revolution were being lost through inability to build up a formidable political organization; and the interesting thing to the modern student of economic conditions is that it was practically along the same lines that the recent convention met in relation to corporations and Congressional powers over interstate commerce. It is interesting to note that in 1787 that which was the primary reason for the coming together of the Constitutional Convention was the problem of interstate commerce.

Every one of the States previous to 1787 had absolute control over the matters of taxation of imports; some were free trade, we would say, and some protective. The inevitable results were quarrels between the States, which became so bitter between Maryland and Virginia that Mr. Madison

introduced a resolution into the Legislature of Virginia, which was passed on the 21st day of February, 1786, for the appointment of a committee, to take into consideration the trade of the States to examine the relative situation and trade of the said States, with respect to the navigation of the Potomac and Chesapeake. The result was that the question was put on a broader basis and the States connected with the navigation of all streams running into the Chesapeake and the Delaware were called to a commercial conference in 1786 at Annapolis. Practically all the Middle States were invited, and five came. It was so disappointing that it was decided to urge Congress to call a convention of delegates from all the States to devise such further provisions as might appear to be necessary, to render the Constitution of the Federal Government adequate to the exigencies of the Union, and to consider certain changes in the Constitution, with the result of what we know was the "Constitutional Convention," held May, 1787.

I doubt whether there was ever gathered together a more remarkable group of men than sat in Philadelphia that summer. Every one of the States of the Union that took part seemed to have done its best in the matter of the selection of men, real leaders in the community, and the problem they had to face was the problem of their day—how to knit together more closely the union that had grown out of the revolution. It is a familiar story that they finally accomplished their work and the average American is more than convinced that it was a very easy thing to do. He knows about the struggles for independence, but he little dreams that through the months from May to September deputies frequently were on the point of having the convention dissolve, and it looked as though it never could be brought to a close. Very wisely, they decided when they came together to sit behind closed doors and no reports of the debates would be published, so that public opinion could not become confused, and when they adjourned in September and sent their work to Congress and the States, it

was even then a question whether that work would be accepted.

We think that the States accepted the Constitution without any exception, but bitter as was the fight between the commercial States and the non-commercial States, and the big States and the little States, and the slave States and the free States, there was running criss-cross all through, a question that was to come further and further into American politics, *i. e.,* the question of what would be called Democracy, for when that Constitution went out to be ratified, there immediately sprang up on every side such a powerful opposition that the question was still a serious one as to whether nine States would ratify. If you ever have an opportunity to look at the close vote in just three States, Massachusetts, Virginia and New York, you will realize that a change of a bare score of votes in three State conventions would have rejected the Constitution. As it was, Virginia and Massachusetts insisted on the condition of the adoption of the Bill of Rights, or the first ten amendments, before they would ratify, and the result was that the Constitution went into operation in 1788, with the first ten amendments representing what might be called the Democratic element throughout these States.

In this State for instance, the whole western part was against the adoption of the Constitution, showing that the struggle was the old struggle still going on in this day between the modern States—commercial and industrial. All through the old States in 1787 the great cities with the wealthy and educated classes wanted the Constitution, but all the supposedly democratic element, the relatively poor, the great bulk of the farmers, the men of the up country, were against it, and in this State the fight was particularly bitter. One basis of opposition all through the States to the adoption of the Constitution was that it deliberately threw aside the fruits of the War of Independence, which had been a war for democratic ideals against which the adoption of the Constitution was a reaction, putting into

power indefinitely the elements above of a community that also were to control for an indefinite time.

But then followed a strange thing; the very elements that opposed the adoption of the Constitution turned around and became its most devoted friends, so that from the administration of Thomas Jefferson down, the great political party associated with his name regarded itself as the guardian of the Constitution.

We have got to remember that there are two Constitutions: First, the Constitution as written, and secondly, the Constitution as it has actually worked, and as it has been interpreted by the courts. There immediately sprang up two views of the Constitution, reflecting the desire for power, because primarily all discussion of constitutional power was a discussion of the lodgement of political power. The party first in power claimed that the Constitution properly interpreted would allow for the development of a great national organization and that not necessarily at the expense of the States; and a man who had been anxious to see the Constitution, and who had written in that remarkable series of essays "The Federalist" kept constantly quoting from sad experience how valuable the Constitution would be, and how, when organized and put into practice, it would safeguard the States.

Despite what Mr. Gladstone says, there were very few principles in the Federal Constitution which could not be found in the State Constitutions then existing. Almost every one was derived as the result of the political experience of the people. The Federalists were made up of two or three elements, some nationalist on general principles, some representing the leave great interests of property, the great financial interests of the time, who saw in the evolution of national power a safeguarding of the great obligation incurred during the war.

Hamilton lived to be confirmed in the feeling that the Constitution was an unusual piece of work and when he went to Poughkeepsie to argue with a convention that met

to reject the Constitution he put himself in line with a political work he had no heart in. There is no more remarkable piece of work than that he did in that State Convention, for he succeeded in getting it adopted, thus bringing into the organization one of the most important States in the Union, curiously enough called a small State, and not so important then as now.

But when the Constitution was put into practice then began the great series of questions. The Federalists insisting upon an interpretation that would give to the central government ample power, the opposition contending that no interpretation should ever be made of the terms; that is, it should be strictly construed. Those were the circumstances that influenced the first three administrations of the United States, two of Washington and one of Adams.

Whatever went on in the exercise of Federal power in those twelve years went on directly on supposedly constitutional lines; the justification for National Banks was found in the power to borrow money, but the curious thing is that the first wrench to the Constitution, at least what might be called a wrench, making it almost waste paper, was the act of Thomas Jefferson when he annexed Louisiana. His political opponents saw at once that he had abandoned the old ground of strict construction, with the result that the purchase of that great valley was to throw New England to the edge of the great Middle States of the Mississippi Valley, resulting in the gradual transfer of political power west of the Alleghenies.

The result of the purchase of Louisiana was the opening up of the West, and the gradual growth of Democratic feeling as understood to-day in popular government, and the breakdown of all that had been characteristic up to 1800. We little realize when speaking of feeling on the part of some people that it was a reaction, that there was not a single democratic community, as we use the phrase, except Pennsylvania. I am using it as implying participation of adult males in the conduct of representative government, as

was understood in the Colonial States. Up to 1818 in Connecticut not a man voted who was not a member of the Congregational Church; in all States one had to be possessed of a certain amount of property, and in a number there were educational qualifications. Property, religion and education impressed all New England communities; in New York there was not quite the same elements of restriction, south of Pennsylvania there were restrictions, and the only really democratic State in the whole thirteen was Pennsylvania.

One of the most distinguished of American historians, a member of a distinguished American family, who was from a neighborhood not looking too kindly on Pennsylvania, says that without Pennsylvania, the United States of America would never have been made. I am quoting from Henry Adams, grandson of John Quincy Adams, who in his History declares that it would have been impossible without the assistance of Pennsylvania to affect the adoption of the Constitution, and her lesson to the rest of the Union is what has given us what we call the United States. Now, the significant thing to the student of American history, after the adoption of the Constitution is the remarkable change that has taken place in the evolution of the West; most of us think that the West, if anything, is at least a queer place. We still have the Colonial attitude of mind towards it, and if anything interesting does develope there and we seem to approve of it, we are surprised; but, do you know that ever since Louisiana became Federal territory, eastern men slowly receded from the domination of the American Union. With the opening up of the Ohio Valley, the young Virginian in Kentucky, Ohio, Indiana, Illinois, laid the foundation for a new Commonwealth in the Southwest, and the day of the Western leaders came not long ago when the young Jefferson party insisted on a policy that would ruin Jefferson's whole political scheme.

John C. Calhoun standing shoulder to shoulder with Henry Clay predicted that the day of the old strict construing of the Constitution would soon be at an end. They

wanted the Federal Government to build a strong link connecting the great West with the East by means of roads and canals. Jefferson was driven first to the purchase of Louisiana through the influence of the West, into the War of 1812, and from the moment the war closed that ceased.

A significant thing to the student of American history is that after the adoption of the Constitution a remarkable change took place in the evolution of the West, and the result is that not since the War for the Union, have we elected any Republican east of the Alleghenies, except Roosevelt. Cleveland was the only man from the East, outside of Roosevelt, elected since that time. We see how the Speakership of the House has been held by Western men, and how the Western men dominated the committees of the House; and how everybody is convinced of the fact that it was the West, through its rallying to the cause of the Union, that made possible the successful termination of the Civil War. If the West had thrown in its interest with the newly formed Confederacy the Union would have been a thing of the past. What was it that drove Jefferson to the purchase of Louisiana? It was the independent development of the West that raised a community of interests. What drove Jefferson to go back on every political doctrine that he held sacred? The neighborhood of the Ohio was filled with settlements, some New Englanders, some French, some Pennsylvanians, and the population that was gradually going down the Ohio River. Their natural outlet to the sea was by the Mississippi. If they wanted to come to the Atlantic they had to come through two hundred miles of the wildest mountain country that the white man had ever traversed. It was simply impossible to conduct goods or do business by way of the Alleghenies; in going down the Mississippi, Spain was spread out on both side of the Mississippi, controlling its mouth. We know that the power that controls the mouth of a

great river practically dominates the commerce of the whole Valley. The people began to be constantly irritated by Spanish custom rates, and in this state of irritation it was only a question of time when they would declare war. Mr. Jefferson was opposed to war; his idea was that with our great granaries we could starve Europe into submission. To his mind it was one of the forces that throw communities into lines of degeneration, and if he could do this he would prevent America having war, and the long and short of it was that in order to keep the Western settlement from breaking away he was forced to purchase Louisiana to give us the Mississippi clear to the Gulf.

Men like John C. Calhoun and Henry Clay made James Madison, as the price of his nomination, declare war on Great Britain, and with the War of 1812 the old type of statesman passed away, and the new type came into existence, recognizing the great opportunity for development west of the Alleghenies. After the War of 1812 comes a change in American industrial life that is not simply a change but a revolution—the introduction of the steam railroad. When the Constitution was adopted the communities numbered barely four millions of people, stretched along the Atlantic coast, running nowhere into the interior more than fifty miles, probably in some places one hundred miles, along the rivers, hanging to the Atlantic sea-board for almost a generation. The development of the turnpike helped, the canals helped, but with the steam railroad came in a revolution that has been going on until your day, slowly but surely destroying every vestige of the United States as it existed in 1811. In other words, the United States as it exists in 1911 is no more like the United States in 1811 than we are like England in the days of Henry the Eighth. The development of the steam engine has produced the rapid evolution of the processes connected with transportation and manufacture that have brought about new industrial and social relations, they have brought about new legal relations to the Constitution, and

made it an instrument in actual practice radically different from what its founders conceived. The first President was elected twice, practically unanimously. When John Adams and Thomas Jefferson fought there was a great deal of consideration of Adams, but the next contest about 1800 was one of the greatest bitterness, and there the Constitution broke down.

The Electoral College had originally been established with the idea that the President was to be chosen by a group of disinterested men, but that idea disappeared the moment Washington retired from the Presidency. Never since has an elector exercised constitutional power; he simply became the registration agent of the nomination of the constituents.

The Constitution broke down in 1800 and we had to adopt the twelfth amendment, which practically put the Vice Presidency out of use, because up to 1800 the Electors for this office voted for two men for President; the man who got the greatest number of votes was President, and the man who got the next highest number was the Vice President. Ever since 1804 the Elector votes for one for President and one for Vice President, and the inevitable result has been that it has reduced the Vice Presidency to what one famous President called "innocuous desuetude". One cannot wonder that the gentleman who occupied that place, and was in the chair, felt that he was in the most ridiculous position in America. He is an official but may not make a speech; he has no vote except in tie, and you cannot make a virile man look for the Vice Presidency. But the remarkable thing is the evolution of the National Nominating Convention; there you have given up a phase of the unwritten constitution that has practically taken the whole matter of the election of the President into its own hands.

An interesting fact of the evolution of the Executive is that we are slowly but surely coming to regard the executive power in a very different light from what it was regarded one hundred years ago. The President is more or

less looked to to initiate policy, submit plans to Congress; the President was supposed to leave to Congress initiative legislation; he was merely to execute, see that the laws were fully carried out. But we have come through our political practice to-day, to see that the division that is supposed to exist between the two branches is a division that it would be a very good thing to remove. The effectiveness of the executive department is shown when the President of the United States is in the same position that the present President is with respect to Congress, not when he has a Congress with which he cannot work.

We have got our executive power clearly marked off from our legislative power, and the judiciary from both executive and legislative. So far the assumption on broad lines is true; the other assumption is that it follows the British Constitution, which it does not in the slightest degree, because in Great Britain they have the closest kind of power between the several branches of government; in fact, in Great Britian to-day the executive is nothing but the Executive Committee of the dominant party in Parliament; it is a fundamental principle of the British organization that Parliament is supreme.

In the United States it is a fundamental proposition that the three powers, executive, legislative and the judicial are co-ordinate. In Great Britain under the broadest interpretation the Executive is tied up with the House of Commons and the Judiciary is at the mercy of the Legislative branch because any judge in Great Britain can be removed on the address of two-thirds of Parliament. In the United States in the last fifty years there has insensibly grown a feeling on the part of the Presidents that they are coming to be looked upon more and more as typifying a movement, instead of being an agent to register the acts of Congress; and, it is a notable fact that Congress itself in the last forty years has pratically ceased to legislate; all the work is done by committees, which committees are practically minority law-making bodies. We have had an evolution in the office of

Speaker to an extent undreamed of, and absolutely and radically different from the speakership as it exists to-day in the House of Commons.

As to the Judiciary: Can we imagine to-day a Chief Justice of a Federal Supreme Court resigning to become Governor of a State? Yet that is what John Jay did when he became Governor of New York. Washington had to urge men to become Justices of the Supreme Court. For years it was not regarded as a great position. In fact, there were many abler men on the State Bench than on the Federal Bench, men like John B. Gibson, who, curiously enough, made one of the most interesting decisions in Pennsylvania law, on one of the most burning questions of American politics; the power of the Court to declare a legislative Act unconstitutional.

Most of the Courts think that John Marshall spent all of his time setting aside Acts of Congress as unconstitutional. John Marshall declared but one Act of Congress unconstitutional, the case of Marbury vs. Madison, District of Columbia, when the Congress organized and there were appointed a certain number of Justices, one of whom was named Marbury. The Secretary of State, John Marshall, had been appointed a few weeks before; as Chief Justice of the United States Supreme Court, he made out their commission, and as Secretary of State he left them there for the incoming Secretary of State to deliver. James Madison refused to deliver them. The law creating these justices said that in case these commissions were not issued suit should be begun in the Federal Supreme Court. The suit was begun in the Federal Supreme Court and Marshall made the decision that the Court had no original jurisdiction, because the Constitution says positively that what is the original jurisdiction of the Supreme Court could not be added to by Congress; only he went on and said that such jurisdiction was in the District Courts of the United States, which had authority to issue the writ to any officer within the district who refused to perform a duty ministerial in character. He said that if

that man did want to get those commissions there was another way to do it, and he hoped he would get them; that was no more than *obiter dictum,* but the consequence was that Marbury did not get his commissions. Marshall defined what the position of the Supreme Court was; that Congress could not add to its power nor take it away.

And from that day until the day of his death not a single Act of Congress was declared unconstitutional by Marshall. Where he went astray was as to the power of Congress in developing international power at the expense of the State. You know that the first decision declaring an Act of Congress unconstitutonal is in the Dred-Scott case. So for the first fifty years not a single Act of Congress dealing with general legislative power was set aside. I should not be surprised same day to see Judge Gibson's decision brought to light. It was one of the most weighty decisions ever made. True, it was not made until long after Marshall made the Marbury vs. Madison decision.

The Courts were simply to enforce all practical law with reference to which the Constitution would be sufficiently plain. There was no doubt in Gibson's mind that if a State law conflicted with the Federal Constitution it should be set aside, because that is in the Consitution; but the tendency in modern times of the Courts is to set aside legislative programmes on the general principle that they are opposed to certain principles, or the tenor or spirit of the Constitution. That was something the older Judges did not do. They said we will interpret according to the strict letter of the law, if there is no conflict with that we will let it go.

One of the most able of all our American law teachers, James B. Thayer, in a very interesting study of John Marshall pointed out the danger of the Courts in constantly setting aside Acts of Congress, or even of the Legislatures, as unconstitutional and he suggested an alteration along this line. We all know what happens when our General Assembly goes into session, when matters of appropriation come

up the Legislature appropriates everything that is asked for, knowing that the Governor will eventually assume the responsibility and cut it out. If the Legislature knew, or all the members knew, that they personally would be held responsible for the failure of the appropriation on certain conditions, they would have a more manly spirit, and the same thing is true of questions of doubtful validity. We are putting on the Courts, through the Legislatures and Congress, a strain that they were never expected to bear, and we are bringing them within the discussion of great political questions that will inevitably make their present position a serious matter. We little realize that the whole problem connected with the question is ordinarily without precedent in any other English speaking country. No country in the world has a Court that will set aside an Act of its Assembly as unconstitutional. It is out of the question for the written Constitution, and the idea leading the Courts to clearly define the relations of the different departments goes without saying. But when you have great questions of the Legal Tender cases—I don't know whether this library will have the posthumous works of Joseph P. Bradley or not, but when the first Legal Tender case came before the Court, the Judges stood four to three in favor of its legality. The Court held its conferences and the day came when the final conference was held and the Justice was to be selected to write the decision, when one of the Justices began to hesitate and go over to the other side—to the other three—making it four to three against the constitutionality of that Act. The Act was endangered by the change of that particular Justice, and when one of the Justices remonstrated with him and called his attention to the fact that in previous conferences he had been on their side, that Mr. Justice could not remember which side he had been on, and so the first Legal Tender case was decided. The next day those six Justices asked that particular Justice to resign, which he did, and I ask you, if you are interested in the formation of

that court, if there was a Justice so senile that he could not remember the discussions from one conference to the next, should not his colleagues ask him to leave the bench?

The account of this event was left by Mr. Justice Miller, who was one of the minority in the first decision, and he handed it to Mr. Justice Bradley with instructions that it was never to be printed until all the members of the court then were dead. It has since appeared in the posthumous publications of Joseph P. Bradley, edited by his son.

Then came a second decision which completely reversed the court, and then a third, which went further than before, and particularly explained the powers of Congress in the matter of Legal Tender. It is an interesting thing to notice the evolution of this judiciary power in a country like ours, because we are a country that seems to be most peculiar in our devotion to legalism, in our devotion to the lawyer. Never has a single distinguished lawyer in England come into political prominence until Asquith's day. There is a country that for some peculiar reason has never made a lawyer into a successful party leader, and one of the commonplaces is that a British lawyer is usually a failure in the House of Commons; while on the other hand there are those who argue that the only way to solve a political question is the legal way.

There was no more legal and logical impossibility than the parting of the States in 1860, when they said they had a right to secede, and ten years afterwards (1870) we had a Supreme Court saying that the Ordinances of Secession were not legal. It would have been a happy thing if it was not until 1871 that the Supreme Court declared the Acts of secession unconstitutional. But a significant thing is the gradual obliteration of the State. There is no question about it, the State to-day is slowly but surely being thrown out of its old constitutional relations to the Union, as illustrated by the fact that a man will resign a Governorship to become an Attorney General of the United States, or a Governorship to become a Justice of the United States.

Mr. Root, at a Pennsylvania dinner several years ago, said that unless the States woke up the construction would be found, or must be found, to save our political system. The other day the Supreme Court made a decision involving the Safety Appliance Act with reference to the State Railroad Commission of Alabama. The result is inevitable. I don't say I like it—but that decision wipes out the power of every State Railroad Commission in the United States; and as power gravitates to power, so has come with the evoluton of the modern United States a gradual concentration of power in the Central Government, and the tendency will continue along other industrial lines.

The old States had their local traditions, but the difference between Iowa and Oklahoma of the West, and Massachusetts, Pennsylvania and Virginia of the East is self-evident. The former States are not inclined to regard their State history as a matter of great pride. With them becoming simply an administrative division of the Union and its history, would not be a serious matter. But the point of view on this side of the Alleghenies is that the State as an essential factor of the Union is in danger of being destroyed by the economic evolution that has been going on since the close of the War. Since then with few modifications it has been shown through interstate commerce, through the Supreme Court, through State activity. Whether that would mean that the ultimate condition of the State would be a department like that, or reduced to the condition of the counties of England, is not for me to say. My interest in the whole question is that of presenting before you for your consideration factors unusually interesting and which are more than frequently overlooked. If in 1911 the great power that the United States represents, the legal and political constructions of 1811 (if that is possible) it is going to be the solution of a problem that heretofore no set of people ever have been successful with. It is dread of concentration of power. Jealousy of power,

so much so that wherever he could in the Federal Government he split it up and developed the theory of checks and balances, despite dread of power. He has inevitably seen development of power through our Federal Government.

I read a speech delivered before a group of Philadelphia business men at the Union League by the senior Senator of this State, which was one of the most interesting things to a Pennsylvanian. In it he said that after all John C. Calhoun was probably right—probably State rights, after all, were justified; there was a day when John C. Calhoun was the popular man with the young men of the Democratic party in Pennsylvania, but to intimate to a Philadelphia audience of men interested in a political system that John C. Calhoun fought against all his life—that probably he was right—that after all behind State lines was to come the bulwark of business was amusing to say the least. John C. Calhoun was one of the most intellectual men that this country produced. He had probably the finest mind of any American appearing in public life, but when he tried to work a solution of that problem he came to the conclusion that it simply meant anarchy; we were to have two Presidents, one counteracting the other, elected by the different parts of the Union; such a plan never would have worked.

Now, the great interest which we call the Slave interest developed behind State lines. Would it not be one of the curious whirligigs of time to see the manufacturing industries falling behind John C. Calhoun's political philosophy to protect them against the encroachments of Federal power? To my mind it would be equally fatuous as the plan of Mr. Calhoun. We have got to remember that to-day in the United States from Lynn, Mass., to Birmingham, Alabama, there is one economic union; that the union existing in the United States from 1776 to 1811 was not one economic union; that Massachusetts and Virginia were really as distinct as though in different national communities.

There was a great deal to justify the evolution of sentiment in the States south of Pennsylvania that reflected the political actions in 1861, in other words, practically every State that went out through the old Confederacy was led by a political doctrine that was characteristic of all America in 1787. The only reason for the change was the fact that the great economic engines did not affect the South as they did the North—it was practically untouched by immigration or manufacture, broadly untouched by the evolution of the railway system—for, in 1876 it was about like the rest of the Union had been in 1811. It was inevitable that the people should develop a concern that would protect its interests.

I would not be surprised if in the future we should see the sectional issue raised again. We must not delude ourselves that sectionalism is at an end. We still have great rivalry between the East and West on the question of international commerce. Every one on the Pacific Coast feels that the whole coast is practically another part of the world, with a distinct atmosphere; public opinion is theirs and they feel it is theirs. When you cross the Rockies and come into the Middle Western States you have got another atmosphere. There is no question about it, the more the railroad develops more southern communities like Birmingham, the more solidified will what we call the Union become. Under any circumstances, those particular political and legal doctrines characteristic of 1811 cannot be applied in their fullness even in 1911.

I trust that I have not imposed too much on your patience. I feel very much inclined to believe that if you have any questions to ask I will try to answer them; I have given you theories and inferences just now beginning to be talked about. A great many things I have said are commonplaces to the student of our legal and industrial development, and they are impressed upon those who take history as they go without thinking of its serious applications.

THE BEGINNINGS OF LUZERNE COUNTY, PENNSYLVANIA.

By Oscar Jewell Harvey, Esq.
Member of this Society.

READ BEFORE THE SOCIETY, APRIL 11, 1913.

(STANLEY WOODWARD HISTORY FUND.)

At Trenton, New Jersey, on December 30, 1782, a Court of five commissioners (who had been duly commissioned by the Continental Congress "to hear and finally determine the controversy" between the States of Pennsylvania and Connecticut with respect to the jurisdiction over the Wyoming lands) pronounced the following decree:

* * "We are unanimously of opinion that the State of Connecticut has no right to the lands in controversy. We are also unanimously of opinion that the jurisdiction and pre-emption of all the territory lying within the Charter boundary of Pennsylvania and now claimed by the State of Connecticut do of right belong to the State of Pennsylvania."

This decision is known in Pennsylvania history as "the Decree of Trenton."

The people of Wyoming, generally, viewed the proceedings and findings of the Trenton Court with comparative indifference at first, assuming that the question at issue before the Court was as to politcal jursdiction only. But, very quickly, after the decree had been generally promulgated, and thoroughly discussed by the people, there came a change of opinion.

Charles W. Upham, in his "Life of Timothy Pickering" (II:232) says, referring to the Decree of Trenton: "Thus ended the Wyoming controversy between the two States. It ought to have ended strife, and given peace at once and

for ever to the unhappy valley; but it did not. The Government of Pennsylvania ought instantly to have quieted the Connecticut settlers in the possession of their farms with their improvements. The affections and allegiance of such a people would have been worth more than all their lands. But other counsels prevailed, and a new chapter of disorders and troubles was opened."

During the latter part of the year 1783 and throughout nearly the whole of 1784 the "Second Pennamite-Yankee War," as it has been called by historians, was waged in Wyoming. Many lives were lost, much valuable property was spitefully destroyed, and the deepest misery and most undying hatred were engendered among the participants in this war. Soldiers in the pay of Pennsylvania, garrisoned at Fort Wyoming, on the River Common, near the foot of Northampton Street ("Fort Dickinson" it was called by the Pennsylvanians at that particular period, in honor of John Dickinson, the then President of the Supreme Executive Council of the State), aided the civil authorities who had been sent from Easton and Sunbury to Wilkes-Barré to dispossess the Yankees, and drive them from their homes and possessions.

Upon two days in May, 1784, the families of 150 Yankees, aggregating more than 500 persons, were evicted at the point of the bayonet, driven from the valley into the wilderness beyond the Wilkes-Barré Mountain, and ordered never to return. In many instances dwelling-houses were set on fire by the Pennamites after the occupants had been dispossessed.

In the early part of July, 1784, the militia men who had been garrisoning Fort Dickinson, or Wyoming, having been discharged from the service of the State, more than a hundred evicted Wyoming Yankees, who had obtained a supply of arms and ammunition, quietly and secretly returned to the valley and took possession of and fortified some vacant houses within the present limits of the borough of Forty

Fort. On July 23 they crossed over the river to Wilkes-Barré, surrounded Fort Dickinson—then occupied by about one hundred Pennamites—and began an unsuccessful siege which lasted four or five days; in the course of which several lives were lost, and twenty-three houses in the village were set on fire by the Pennamites and burnt to the ground.

About ten days later Col. John Armstrong (later Adjutant General of the Pennsylvania militia, with the rank of Brigadier General, and Secretary of the Supreme Executive Council of the State) rode into Wilkes-Barré from Easton at the head of 400 militiamen, "to repress violence from whatever quarter, to establish order, and restore the reign of law"! Soon thereafter, by means of false promises and unfair dealing on the part of Colonel Armstrong and his coadjutors, eighty odd of the most active and belligerent Yankees were disarmed at Wilkes-Barré, taken into custody by the militia, formed in two companies and marched—in irons and under guard—the one company to Easton and the other to Sunbury, Pennsylvania, distant from Wilkes-Barré sixty-five and sixty-eight miles, respectively.

In November, 1784, the Pennsylvania Legislature ordered that the Connecticut settlers in Wyoming should be restored to their possessions. Armstrong and his militia, having been recalled from the seat of war, evacuated Fort Dickinson Saturday, November 27, an hour before midnight, and quietly marched out of the valley en route to Easton. Three days later nearly all the Yankees in Wyoming assembled on the River Common, Wilkes-Barré, and, roused and incited by spontaneous enthusiasm and pervaded by a spirit of grim earnestness, promptly razed Fort Dickinson to the ground.

The destruction of this fort (which, in the opinion of the inhabitants of Wyoming, had stood for some time then only to harbor a horde of myrmidons whose unjust and hateful acts had made the lives of the inhabitants unhappy and their property unsafe) marked the close of the "Second Pennamite-Yankee War."

Now, with almost one accord, the settlers at Wyoming who were here under the auspices of The Susquehanna Company, and who, prior to the Decree of Trenton, had considered themselves to be citizens and under the jurisdiction of Connecticut, began to disdain the idea, and declined to recognize the fact, that they were a part of the County of Northumberland, Pennsylvania, and amenable to the laws of that State. In fact, they governed themselves in their own way, although nominally under the laws of Pennsylvania. They even organized a regiment of militia, of which they elected John Franklin Colonel and John Jenkins Major.

These doings aroused the bitterest feelings in the hearts of the Pennamites settled in and near the Wyoming region, and early in January, 1785, some sixteen of them (men and women) journeyed to Philadelphia, appeared before the Supreme Executive Council, and made known their grievances. The Council appointed a committee of its members to take the depositions of these complainants, and on January 18 the committee reported that they had taken the depositions as directed, and begged leave to lay them before the Council.

At Wyoming, under the date of February 6, 1785, David Mead, Esq. (an original settler in Wyoming Valley as a member of The Susquehanna Company, but later inimical to the Company and its settlers, and in 1784 and subsequent years a Justice of the Peace under a Pennsylvania commission), wrote to the Supreme Executive Council in part as follows*:

"I lament that I have occasion to address you on the affairs of this unhappy part of the State. I have delayed writing until all hope of establishing any kind of order is vanished. It is true that irregularities have been committed by many of the Pennsylvanians against the Connecticut claimants; but great care has been taken that the offenders are generally prosecuted with severity. * *

*See "Pennsylvania Archives," Second Series, XVIII: 641.

"Unwearied pains have been taken to convince those claimants of the determined honor and justice of the State to afford them every restitution in the reach of the Law. But all to no purpose, who have descended to commit almost every kind of disorder, and bid defiance to Government, so that the exercise of the Civil Authority is altogether impracticable. They have appointed two or three different committees to transact different kinds of business for the promotion of their designs. They have formed their militia, appointed field and other officers in contempt of the State, and many inoffensive families are now under orders immediately to move away. * * * As a citizen and servant of Government I am obliged to claim your protection and support."

At Wyoming, under the date of February 20, 1785, a petition was prepared addressed to the General Assembly of Pennsylvania. It read in part as follows*:

"We your humble petitioners would take the earliest opportunity to lay before your Honorable House the deplorable situation in which we have been enveloped since the Decree of Trenton, which changed the jurisdiction in favor of Pennsylvania. From that date we have been denied the due administration of the laws of Pennsylvania, or, in other words, Common Justice, which the greatest criminals are entitled to; * * * although we have made incessant application to the Legislative Body of this State for justice to be administered without any discrimination of persons, yet to no purpose, although fair promises were made; and we had finally concluded there was no justice in reversion for us, either from the Legislative or Executive bodies of this State.

"But being creditably informed that the present Assembly were composed of such persons who feared God and regarded man, and consequently had a promptitude to do justice to all their fellow creatures, this served as a stimulus

*See "Pennsylvania Archives," Old Series, X:699.

to us to make one prayer more to the Honorable Assembly for justice to be administered without impartiality. * * * We have been often trepanned by our passive obedience and non-resistance, and confiding in some of the first men in office in the State. To mention one instance, of Lieut. Col. John Armstrong and John Boyd, Esq., who, by forfeiting their word and honors and everything that is near to gentlemen, made us prisoners, abused us with more than savage treatment, and robbed us of upwards of one hundred rifles and valuable fire-arms, and many other effects—even to our smallest pen-knives. We may say with propriety that we have been robbed of upwards of 200 rifles and valuable fire-arms by officers of Government since the first of last May [1784], which have never been returned to this day. * * *

"Until your Honors shall condescend to draw a line for our future conduct it is impossible for us to know what course to steer. We are at present destitute of any Civil Authority in this place. Esquire [David] Mead has refused to grant any precept these six weeks past; therefore the sooner we can have the privilege of electing our own officers, civil and military, agreeable to the Constitution of this State, the sooner happiness, peace and good order will be restored to this settlement. * * * In the intermediate space, while we have no authority in this place, we have thought it most advisable to form ourselves in some order for our mutual defense and safety, and to act as near the laws of this State as possible, until we shall have a constitutional establishment of the same.

"We most heartily pray for your Honors' exertions to establish peace and good order in this distracted and infatuated place; for we think that the political salvation of this settlement depends upon your assiduity and exertions in this respect, as well as the happiness and safety of this State. * * * And we will pray that the benedictions of Almighty God may rest upon your honorably Body, and that your

Honors may have wisdom as the angels of God, to direct you at all times. And that your Honors may be enabled at all times to consult the happiness of this State in such a manner that your names may be sacred in the annals of history, and generations yet unborn, when they come on the stage of action, may call you blessed, is the sincere prayer of your humble petitioners."

This petition was signed by ninety-six of the most prominent settlers at Wyoming under the auspices of The Susquehanna Company, among the signers being such men as Prince Alden, Benjamin Bidlack, Thomas Bennet, Col. Zebulon Butler, Col. John Franklin, Benjamin Harvey, Christopher Hurlbut, Maj. John Jenkins, the Rev. Jacob Johnson, Abel Peirce, Capt. Simon Spalding, Dr. Wm. Hooker Smith, William Slocum, Lebbeus Tubbs and Abel Yarington.

In due time this petition was presented to the Pennsylvania Assembly, sitting at Philadelphia. Sometime later, upon consideration of this document, the letter of David Mead, Esq., previously mentioned, and various other petitions and letters addressed to the Assembly respecting Wyoming affairs, the Assembly appointed its Speaker, the Hon. John Bayard, and the Hons. Persifor Frazer and George Smith, Members of the Assembly, a committee to proceed to Wyoming to investigate and report upon the actual condition of affairs here. This committee arrived at Wilkes-Barré May 4, 1785, and remained here six days engaged in the prosecution of the business in hand. They had considerable correspondence, and some interviews, with David Mead, Esq., representing the Pennamites, and with a committee composed of Zebulon Butler, John Paul Schott, John Franklin, Ebenezer Johnson, John Jenkins and Christopher Hurlbut, who represented the Yankee settlers.

About this time a number of men who were not residents of the Wyoming region acquired rights, or shares, in The Susquehanna Company. These men were unquestonably land speculators, and under their "rights" large bodies of

lands were allotted to them by the officials of the Company. Chief among these speculators were Dr. Joseph Hamilton and Dr. Caleb Benton of the State of New York.

The Susquehanna Company convened at Hartford, Connecticut, July 13, 1785. Its proceedings were significant, and embraced a substantial declaration of war. Among other resolutions the Company adopted the following: "That, although the Court, constituted to determine the right of jurisdiction between the States of Connecticut and Pennsylvania, have astonished the world with the decision in favor of Pennsylvania, yet our right to those lands in possession is founded in Law and Justice—is clear and unquestionable—and we cannot and will not give it up.

"That the conduct of the State and people of Pennsylvania towards the proprietors of the lands on the river Susquehanna, in consequence of the Decree of Trenton in A. D. 1782, was impolitic, unjust and tyrannical, and has a tendency to interrupt the harmony of the States.

"*Voted,* That this Company will support their claim and right of soil to all lands lying on the waters of the river Susquehanna included in their deed of purchase from the Six Nations of Indians.

"*Voted,* That every able-bodied and effective man approved by any one of the Company's Committee, not being a proprietor, and that will repair to Wyoming and submit himself to the order of this Company and their Committee at this place, shall become a half-share-man proprietor in said Company; * * provided he remains in said country for a space of three years and does not depart therefrom without the permission of such Committee; and also, provided that such half-share proprietors do not exceed 400, and provided they arrive [on the ground] by the first day of October next [1785]."

Immediately upon the adjournment of The Susquehanna Company a number of its most radical members conceived the idea of calling upon Gen. Ethan Allen of Vermont to

aid them in their contest against Pennsylvania. General Allen had been very active in organizing the State of Vermont, and at that very period was laboring with others of his fellow citizens to have Vermont admitted to the Union of States, notwithstanding the strenuous opposition of the State of New York.

In the latter part of July, 1785, therefore, a Committee of Susquehanna proprietors repaired to Bennington, Vermont, where they interviewed General Allen on the subject of Wyoming affairs. In consequence, under the date of August 15, 1785, General Allen wrote to Dr. Samuel William Johnson* at Stratford, Connecticut, in part as follows:

"I have agreed with the Committee of The Susquehanna Proprietors to speedily repair to Wyoming with a small detachment of Green Mountain Boys to vindicate (if it appears to be practicable) the right of soil of those proprietors to that territory, whatever may be the legal decision relative to the jurisdiction."

General Allen was unable to visit Wyoming as soon as he had promised and purposed. In the meantime the Executive, or Managing, Committee of The Susquehanna Company had conveyed to him certain shares, or rights, in the Susquehanna Purchase. At Bennington, under the date of October 27, 1785, General Allen wrote to Col. Zebulon Butler and Col. John Franklin, and their friends at Wyoming, in part as follows:

"You have undoubtedly previous to this date been informed that I have espoused your cause against Pennsylvania. I purposed in August last to have made a visit to Wyoming, and to have consulted with your principle men *on the best measures of defense*, but urgent business would not admit it. Extraordinaries excepted, I purpose to make a tour to your hostile ground next Spring. My father was an original proprietor in the Susquehanna Purchase, and

*He was at that time a Representative from Connecticut in the Continental Congress, and was also one of the regularly appointed agents and legal advisers of The Susquehanna Company.

besides that I have since been considerably interested * * I hope to see you face to face next Spring, nor will I give up my interest to usurpers without trying it out *by force of arms!*" * * *

The fact that General Allen had espoused the cause of the Wyoming Yankees, and that he and some of his "Green Mountain Boys" were soon coming to Wyoming, did not long remain a secret in this locality. In consequence, the active opposition of the Wyoming Yankees against the few Pennamites who still remained in the region became more strenuous and, in some instances, extremely violent.

At Philadelphia, under the date of September 3, 1785, the Hon. John Bayard, Speaker of the Pennsylvania Assembly, wrote to Col. Zebulon Butler at Wilkes-Barré in part as follows:

"I am greatly distressed and disappointed to find that your people are conducting matters at Wyoming with such high-handed violence and disorder, by seizing the effects and banishing the persons of all those claiming under Pennsylvania, at the very time that we are applying to Congress to determine whether your claims shall be submitted to a Federal Court. * * The Legislature cannot tamely look on such insults and suffer them to continue; and altho they are extremely averse to hostile measures, yet I think they will unanimously, and at every hazard, support the honor and dignity of the State by bringing to condign punishment such lawless and disorderly men. * * I beseech you, Sir, if you have any influence with those people, to at least prevail with them either to restore the property so unjustly taken away, or pay a reasonable consideration for it. But, if you cannot or will not interfere, I would advise you to withdraw from those desperate Freebooters, and be not a partaker in their wicked proceedings." * * *

A meeting of Connecticut settlers and inhabitants of Wyoming was held at Forty Fort, in the township of Kingston, November 15, 1785, and was presided over by Dr.

William Hooker Smith. The meeting adopted various preambles, setting forth the deplorable conditions which had prevailed in Wyoming since the Decree of Trenton, and then adopted the following resolutions:

"*Therefore, Resolved,* That, in order to prevent as much as possible that disorder and licentiousness which are inseparable from a state of anarchy, we find it indispensably necessary to agree upon and adopt some concise mode of government, whereby to regulate our conduct towards each other and towards all men, until the laws of Pennsylvania can operate in these settlements and be administered on constitutional principles.

"*Therefore, Resolved: First,* that a Committee of five of the most wise and judicious men be appointed to regulate the internal policy of this settlement, according to justice and equity, * * until we shall have laws establish in this settlement. *Second,* that the Committee who shall be elected as above shall have full power to regulate the police of this settlement, so far as respects the peace, safety and welfare of the whole, according to justice and equity. *Third,* that we the subscribers, being convinced of the necessity of order and regulation in this settlement, do pledge our faith to each other, our interests if necessary, and our personal aid when called for, to support the Committee in the execution of the important trust reposed in them. *Fourth,* that the Committee shall be removable by the people for maladministration, and others be selected to fill any such vacancies."

Thereupon the meeting, in pursuance of the foregoing resolves, proceeded to elect the committee provided for, with the result that Col. John Franklin, Ebenezer Johnson, Dr. Wm. Hooker Smith, Maj. John Jenkins and Capt. John Paul Schott were duly chosen.

At Philadelphia, December 24, 1785, the Pennsylvania Assembly passed "An Act for quieting disturbances at Wyoming, for pardoning certain offenders, and for other purposes." A general pardon and indemnity was offered

by this Act for offenses committed in the Counties of Northumberland and Northampton, in consequence of the controversies between the Connecticut claimants and other citizens of the State before November 1, 1785, provided the persons having so offended surrendered themselves before April 15, 1786, and entered into bonds to keep the peace. No great number of the Susquehanna settlers were in any humor thus to sue for pardon, and the law became a dead letter.

At Wyoming, in February, 1786, a petition addressed to the Pennsylvania Assembly was prepared (it was dated February 21, 1786), and was signed by 409 "of the inhabitans of Wyoming and vicinity." It set forth, among other things, the following:

"Does the Act [of December 24, 1785] relative to the pardon of offenses, misdemeanors, etc., mean such only as have been found guilty upon trial? Or does it extend to all who stand indicted for *supposed offenses?* Or, still further, does it comprehend and mean all who have acted defensively as well as offensively in the dispute alluded to in the Act? An explanatory answer to these questions will enable your petitioners to act consistently in the matter, and supercede the necessity of sending the militia hither to execute the laws among us. * * *

"We would humbly request that we might be divided, at present, into two districts, one on each side the river, and as extensive as your Honors may think best, with the power and privilege of electing magistrates, &c., as the Constitution directs.

"Your petitioners would furthermore most earnestly request that this settlement might be set off as a *distinct County*. The arguments we would humbly urge for such a measure are, the oblong and incommodious extension of the present county [of Northumberland], our local distance from the seat thereof [Sunbury], the great disadvantage we are subject to on account of travel, time and expenses in attending

the Courts, and, above all, the habitual and mutual prejudices which subsist between the upper and lower parts of the county we now stand annexed to. * * *

"Your Honors will permit us just to observe that prior to the Decree of Trenton we lived happy under the jurisdiction of the State of Connecticut and the enjoyment of her laws. We now wish to be received as good citizens of the State of Pennsylvania, and to enjoy the blessings of your glorious Constitution."

This petition was sent forward to Philadelphia by the hands of Capt. John Paul Schott, who also carried a letter dated at Wyoming, February 25, 1786, signed by John Franklin, Wm. Hooker Smith and John Jenkins, "in behalf of the people of Wyoming," and addressed to Dr. Benjamin Franklin, who, on October 18, 1785, had succeeded the Hon. John Dickinson as President of the Supreme Executive Council. This letter, which was duly received by Dr. Franklin early in March, 1786, contained, among others, the following paragraphs:

"Tis true that the most unexceptionable characters amongst us, influenced by the law of self-preservation, have fought in defense of their lives, their families and their all when attacked by merciless assailants. * * Accordingly we find that the most innocent persons among us, who have occasion to travel through the State, if they have been defensive actors must be loaded with vexatious suits under pretense of debt or criminality, but for no other purpose than to add a pecuniary distress to the already distressed.

"Could we, free from such vexatious but expensive prosecutions, send an agent who could be honored with an interview with your Excellency, we could be able to exhibit such incontestible facts relative to our sufferings, both from the land-jobbers and a former Assembly (influenced by them) as your Excellency would hardly imagine; and could your Excellency in some way furnish a protection for such an agent we shall duly acknowledge the favor and readily embrace the opportunity."

The aforementioned petition to the Assembly was delivered by Captain Schott to the Speaker of the Assembly, March 6, 1786, and the same day it was read to the Assembly and ordered to be laid on the table. Three days later Col. Timothy Pickering, at Philadelphia, wrote to a friend as follows: "The Wyoming dispute is revived. Some are for expelling those settlers by the sword; but I believe rather that such violence will be avoided. They can muster 800 fighting men, and have resolved to stand by one another. The late Council of Censors of this State, in September, 1784, pronounced all the measures of Government respecting those people to have been 'destitute of wisdom and foresight.' I think so too. Those measures were taken during the feeble administration of President Dickinson."

On the same day that Col. Pickering wrote the foregoing letter the Assembly took up the consideration of the report of a committee of the Assembly which had been appointed February 28, 1786, to examine and report on the various communications, relating to the disturbances at Wyoming, which had been received by the Assembly and by the Supreme Executive Council. The report read in part as follows:

"That in the opinion of this committee the intelligence communicated by Council affords little room to doubt but the people at Wyoming are meditating a serious opposition to the authority of Government; and it appears to them highly expedient further to strengthen the hands of Council, to enable them effectually to carry into execution the Act passed at the last session. They therefore submit the following:

"*Resolved,* That a committee be appointed to bring in a bill to authorize the Supreme Executive Council to raise and equip 300 volunteers, in addition to the provisional measures directed by an Act entitled 'An Act for quieting the disturbances at Wyoming, for pardoning certain offenders,' and for other purposes therein mentioned."

After some discussion by the Assembly, this report was ordered to be recommitted, and the Committee was instructed to confer thereon with the Supreme Executive Council.

In the Assembly, on April 3, 1786, on motion of the Hon. Robert Morris, the "patriot and financier" of the Revolutionary period, but then one of the five Representatives from the city of Philadelphia in the Assembly, it was "*Resolved,* That the message from the Supreme Executive Council respecting the disturbances at Wyoming, the report of the Committee read March 9, 1786, on that subject, the petition of the settlers at Wyoming, and generally such other papers as are before this House respecting that business, be referred to a Committee for the purpose of bringing in a Bill to comply so far with the prayer of the petitioners as respects *a division of the county of Northumberland,* and appointing districts for the election of magistrates; and that said Committee do also report such other measures for the consideration of this House as they shall think necessary for quieting the said disturbances."

Under this resolution Robert Morris, George Clymer, Robert Whitehill, Frederick Antes and John Smilie were appointed to serve as the committee provided for, and the next day they reported, in part, a Bill for dividing the county of Northumberland. This report was read and ordered to be laid on the table. Four days later, without taking any further action with respect to Wyoming matters, the House adjourned until August 22, 1786.

Ethan Allen paid his long-promised visit to Wyoming in April, 1786. He arrived at Wilkes-Barré on the 27th of the month, and during his stay here of about two weeks he was entertained at the home of Col. Zebulon Butler. His presence here aroused a good deal of comment and curiosity, and the news soon leaked out that General Allen, John Franklin and John Jenkins, Joseph Hamilton and Caleb Benton of New York State (previously mentioned herein),

Maj. William Judd of Farmington, Connecticut, and other radical and ardent enthusiasts who were members of The Susquehanna Company, were determined to erect a new State out of the Wyoming region.

Of course there were many of the more conservative settlers under The Susquehanna Company who were strongly opposed to a move of this kind, and as a result the discussions *pro* and *con* in the community were many and frequent and sometimes hot. Many letters written by the opponents of the scheme were sent to Sunbury, Easton and Philadelphia. Justice Wm. Shaw of Northumberland County, writing to the Supreme Executive Council under the date of May 18, 1786, said:

"On April 27 Col. Ethan Allen came to Wyoming, who alarmed them by telling them he despised their treating with Pennsylvania; that he had formed one new State, and with 100 Green Mountain Boys and 200 riflemen he could make Wyoming a new State in defiance of Pennsylvania. * * The schemes of the proprietors of The Susquehanna Company are discovered by the enclosed copy of [an intercepted] letter from Joseph Hamilton to John Franklin."

Col. Timothy Pickering, writing to his brother in November, 1787, with respect to certain disturbances in Wyoming, said:

"The troubles originated with a few villians of some ability, but chiefly of desperate fortunes, who had formed the plan to erect a new State in that and the adjacent country of New York; and, taking advantage of the disaffection of a number of the Connecticut settlers at Wyoming, whose prejudices and resentments against Pennsylvania had been co-eval with their settlement in this State, had really drawn into the plot a considerable number of men. * * The principal conspirators lived in the States of Connecticut and New York. Their plot was so far advanced that Major [William] Judd, a Connecticut lawyer, had actually drawn up a Constitution for their intended new State, which was

to be called *Westmoreland,* the name of the Wyoming district when a county under Connecticut jurisdiction."

It was not until June 11, 1786, that Dr. Benjamin Franklin replied to the communication of Messrs. Franklin, Smith and Jenkins, previously mentioned. Dr. Franklin's reply read in part as follows*:

"The request [in your letter of February 25] appeared to us to be reasonable, and such a protection would have been immediately sent, but that we were told the gentleman who brought your letter—Captain Schott—being in town, and well acquainted with your affairs, the giving him a hearing might possibly answer your purpose as well, and spare you the expense and trouble of sending a special Agent. He was accordingly heard before the Council, and had an opportunity of conversing separately with several of the members, as well as with the members of Assembly, and gave so clear and so affecting an account of the situation of your people, their present disposition and former sufferings, as inclined the Government in general to show them every kind of reasonable favor. The Assembly, accordingly, took the necessary previous steps for a compliance with your request respecting *a separate County,* which will probably be completed at their next session."

The Pennsylvania Assembly re-convened at Philadelphia August 22, 1786, the date fixed upon at its adjournment in the previous April. Almost immediately the House received from the Supreme Executive Council a message relative to Wyoming affairs, accompanied by numerous letters from public officials and others in Northumberland County relative to Ethan Allen's projects with reference to a new State.

The House dawdled along with respect to Wyoming affairs, accomplishing nothing of consequence, until September 23, when several Members received copies of a printed document, a broadside, 24x18 inches in size, containing "An

*See "Pennsylvania Archives," Old Series, XI:14.

Address to the People at Large of the Commonwealth of Pennsylvania." The "Address", relating entirely to Wyoming affairs, was very incendiary in its character; it was dated "Wyoming, September 12, 1786," and to it were attached the names of Ethan Allen, John Franklin and John Jenkins.

This broadside, which had been printed at Hudson, New York, had been disseminated pretty generally throughout the Wyoming region, and in the locality of Sunbury. The copies which fell into the hands of the members of the State Assembly caused those gentlemen to sit up and take notice, and without delay, on Saturday, September 23, 1786, Robert Morris called up the Bill providing for the erecting of the Wyoming district into a separate County.

Mr. Morris declared that he thought if the Bill were passed it would tend in a great measure to quiet the disturbances in the neighborhood of Wyoming; and that some gentlemen of veracity (Col. Timothy Pickering and his companions, mentioned hereinafter) who had just returned from that country had informed him (Morris), and would inform every gentleman who applied to them, that the people in that district would be gratified by being so set off; and that they were not so turbulent and restive as had been represented. The Bill was then read, and considered by paragraphs, and on the question, "Shall the same be engrossed?" the yeas and nays were called, and were: Yeas, 44, Nays, 14—so it was determined in the affirmative. Having been duly engrossed, the new Act, creating *Luzerne County,* was signed on the following Monday—September 25, 1786.

As fully related in Volume VI of the "Proceedings and Collections of The Wyoming Historical and Geological Society", the county thus erected was named for Cæsar Anne de la Luzerne, Minister from France to the United States during the years 1779-'83; the Pennsylvania Legislature wishing, by this act of grace, "to hand down to posterity a testimonial of its gratitude for the services which

the Chevalier de la Luzerne rendered to the Union" during his official residence in this country.

Luzerne County as originally erected extended from the mouth of Nescopeck Creek north to the New York State line, a distance of seventy-two miles in a bee line, and it comprehended the territory now contained in the counties of Luzerne, Lackawanna, Wyoming, Susquehanna and Bradford, aggregating about 3,700 square miles of land. (Subsequently the territorial bounds of the new county were slightly changed by Acts of the State Legislature.) The number of inhabitants within the bounds of the new county was about 2700.

Under the law of Pennsylvania it became necessary for the Supreme Executive Council to appoint and commission a reputable and efficient citizen of the State to fill the offices of Prothonotary, Clerk of the Courts of Quarter Sessions and Oyer and Terminer, and a Judge of the Court of Common Pleas, in and for the new county, and also to properly set in motion there the wheels of government; while, at the same time, it was incumbent upon the Legislature to appoint a Register of Wills and a Recorder of Deeds in and for the same county. It was the practise, at that period, for the Council and the Legislature to confer all these offices upon a single individual, because where there were few inhabitants the fees of the offices were in consequence few and far between; and the sole compensation of the holder of the offices mentioned was derived from fees alone.

For appointment to these offices in and for Luzerne County there were several applicants, among whom was Col. Timothy Pickering. He was a native of Massachusetts, a graduate of Harvard College, a lawyer by profession, and during the Revolutionary War had served for some time as Adjutant General and for four years as Quartermaster General of the Continental army. At the close of the war he had settled in Philadelphia and engaged in mercantile pursuits. When Luzerne County was born he was forty-one years of age.

Sometime previously Colonel Pickering had, in partnership with several other gentlemen, purchased large tracts of land in northern Pennsylvania. In August, 1786, Colonel Pickering and some of his partners journeyed from Philadelphia up to these lands, in order to view them. On their way thither they spent three days in Wilkes-Barré, and while here obtained from Col. Zebulon Butler and Col. John Franklin a good deal of information concerning the unsettled and unsatisfactory condition of affairs here.

Colonel Pickering returned to Philadelphia September 20, 1786, and a day or two later informed his friends the Hon. James Wilson and Dr. Benjamin Rush (two distinguished citizens of Philadelphia and influential personages in the public affairs of Pennsylvania) that the Connecticut settlers in Wyoming "were entirely satisfied with the Constitution of Pennsylvania, and were ready to submit to its government, *provided they could be quieted in the possession of their farms.*"

When, on the 25th of September, the Bill providing for the erection of Luzerne County became a law, Colonel Pickering was urged by his friends to apply for appointment to the various county offices for which legal provision was made, as previously mentioned. He immediately did so, and on October 9, 1786, was appointed and commissioned Prothonotary, Clerk of the Courts, and a Judge of the Court of Common Pleas; and when, later in the month, the Legislature assembled, he was duly appointed by that body Register of Wills and Recorder of Deeds in and for Luzerne County.

December 27, 1786, the Legislature passed an Act providing for the election of Representatives, Justices of the Peace and other officers in Luzerne County, and appointing Timothy Pickering, Zebulon Butler and John Franklin commissioners to notify the electors, administer the oath of allegiance to them, and hold the election.

Colonel Pickering left Philadelphia for Wilkes-Barré

January 3, 1787, for the purpose of effectuating certain measures necessarily preliminary to the real business of organizing the new County. He reached Wilkes-Barré on January 7, and spent a month here, visiting the people in the various settlements in Wyoming Valley and discussing with them the details and probable effects of the laws then recently passed concerning this region.

Colonel Franklin declined to act with Colonels Pickering and Butler in carrying out the provisions of the Acts of the Legislature with respect to the election in Luzerne County, and it was necessary for Colonels Pickering and Butler to proceed without him.

Thursday, Februáry 1, 1787, having been designated by the Legislature as the day upon which the election should be held to fill all the offices specified, except those of Justices of the Peace in the three districts into which the County had been divided, Colonels Pickering and Butler, under the date of January 10, 1787, issued a printed "Notification to the Electors of Luzerne County" directing them to assemble on February 1 "at the house of Zebulon Butler in Wilkesborough [*sic*] in said County, then and there to elect one Representative to serve in the General Assembly, one Councillor, two fit persons for Sheriffs, two fit persons for Coroners, and three Commissioners; and also three Inspectors of the said elections."

The house of Colonel Butler stood at the south-east corner of Northampton and River Streets, Wilkes-Barré, and there the first election held in Luzerne County took place on the day designated—223 electors from the various settlements, from Wapwallopen on the south to Sheshequin on the north, attending and casting their votes. Relative to this election Colonel Pickering wrote in his journal, under the date of February 1, 1787, as follows:

"The election has gone on with great quiet and regularity. A private fray happened in the forenoon between two of Abram Westbrook's sons and some others; but it seems

they had got in liquor, and as soon as Mr. Westbrook discovered them he parted the disputants and sent his sons home, telling them that if they wanted to fight they might do it to-morrow, but not on the day of election. There were also two men, Pennamites, up from Wapwallopen, whom some of the warm Yankees got scent of, and immediately sought for. They were found at John Hollenback's [inn], and got a severe beating. It was said these two men had been active under [Alexander] Patterson in driving the Connecticut people out of the settlement. Their names were George Charles and John Pottman. No other disturbances happened, except a private quarrel arising about the manner of paying for some liquor.

"146 persons have taken the oath of allegiance to qualify themselves as electors. 130 of them took the oath this day, and received certificates thereof. The poll was closed between 9 and 10 o'clock [at night], and at half past two in the morning the inspectors and judges had gone through the examination of the lists of electors, votes and tally powers, and made a public declaration of the names of the persons elected—many electors being present, and waiting to know the issue. The persons elected are: John Franklin, Representative, 145 votes; Nathan Denison, Councillor, 97 votes; Lord Butler and Mason F. Alden, Sheriffs*, 170 and 138 votes, respectively; Nathan Cary and John Dorrance, Coroners*, 107 and 96 votes, respectively; Jonah Rogers, Christopher Hurlbut and Nathan Kingsley, Commissioners, 105, 103 and 100 votes, respectively."

On February 8 Colonel Pickering set out from Wilkes-Barré for Philadelphia, where he arrived about four days later and made a formal return of the election. In due time commissions were issued by direction of the Supreme

*At this period the law of Pennsylvania, governing the election of persons to fill the offices of Sheriff and Coroner, provided that the electors should choose two persons for each office; whereupon the Supreme Executive Counsel would select one of the two and issue a commission to him.

Executive Council to John Franklin as Representative, Nathan Denison as Councillor, Lord Butler as Sheriff, Nathan Cary as Coroner, and Jonah Rogers, Christopher Hurlbut and Nathan Kingsley as County Commissioners.

On March 28, 1787, the Pennsylvania Legislature, or General Assembly, passed, by a vote of thirty-six yeas to twenty-three nays, "An Act for ascertaining and confirming to certain persons, called Connecticut claimants, the lands by them claimed within the County of Luzerne." This Act became known as the "Confirming Law of 1787", and by its terms Gen. Peter Muhlenberg (then a member of the Supreme Executive Council, and later its Vice President), Col. Timothy Pickering and Joseph Montgomery, Esq. (of Dauphin County, Pennsylvania), were appointed Commissioners to receive and examine the Connecticut settlers' claims to lands in Luzerne County, and to perform certain other duties set forth in the Act.

Owing to a very considerable opposition made by the Connecticut settlers at Wyoming to the appointment of Joseph Montgomery, he declined to serve as a Commissioner, and later resigned the office. The other two Commissioners—Muhlenberg and Pickering—issued at Philadelphia, under the date of April 2, 1787, a printed notice setting forth that, in pursuance of the aforementioned Act of Assembly, they would meet at the house of Col. Zebulon Butler in Wilkes-Barré on Monday, May 28, 1787, to perform the duties required of them. Copies of this notice were distributed freely throughout the Wyoming settlements.

Soon thereafter General Muhlenberg resigned as Commissioner, and Daniel Hiester, Jr., was appointed to succeed him.

Concerning the "Confirming Law" Colonel Pickering, at Philadelphia, under the date of April 2, 1787, wrote to Col. Zebulon Butler, at Wilkes-Barré, in part as follows:

"I think it a little extraordinary that some people at Wyoming should not have patience enough to wait for the result of the late session of Assembly before they proceeded

to execute the unwarrantable resolves of The Susquehanna Company.* Such precipitation serves to confirm the opinion that certain characters (notwithstanding all pretenses to the contrary) do not desire peace with this State on any reasonable terms. 'Tis, nevertheless, a satisfaction to the real lovers of peace to reflect that a great majority of the settlement are disposed to accept of such terms as Pennsylvania has granted. They are terms which give entire satisfaction to the Connecticut gentlemen in town with whom I have conversed, and go to the full extent of what the Connecticut Delegates in Congress expected or desired, or, rather, I believe, *beyond their expectations!*

"I trust the prudent part of the settlement will have spirit enough to maintain their own rights, and pay no regard to the extravagant claims or wild, impracticable schemes of men who have not the true interest of the settlement at heart."

Colonel Pickering returned to Wilkes-Barré from Philadelphia about April 10, 1787, and three days later he and Colonel Butler gave formal notice that elections for Justices of the Peace (four in each of the three election districts of the County) would be held as follows: In the 3d District (which included what is now Bradford County), on April 19; in the 1st District (which included Wilkes-Barré and Pittston), on April 26; in the 2d District (which included Kingston and Plymouth), on May 3.

Election officers for the several districts were appointed

*At Hartford, Connecticut, on December 27, 1786, The Susquehanna Company held a largely-attended meeting, and, among other items of business transacted, Maj. William Judd, Dr. Joseph Hamilton, Col. Zebulon Butler, Col. Nathan Denison, Obadiah Gore, Col. John Franklin, Maj. John Jenkins, Capt. John Paul Schott, Capt. Simon Spalding, and a number of others, were appointed "Commissioners". They, "or any five of them", were authorized and empowered to act as "a Court, with power to hear and finally determine all controversies between actual occupants respecting the title of lands [in the Susquehanna Purchase]; this power to determine whenever a form of internal government shall be established in that country."

by Colonels Pickering and Butler, and on the designated days the elections were held, with the following results: In the 1st District Matthias Hollenback, William Hooker Smith, Christopher Hurlbut and Ebenezer Marcy were elected; in the 2d District Benjamin Carpenter, James Nesbitt, Hezekiah Roberts and John Dorrance were elected; in the 3d District Obadiah Gore, Elijah Buck, Nathan Kingsley and Joseph Kinney were elected.

Colonel Pickering returned to Philadelphia from Wilkes-Barré on May 9, 1787, and the next day forwarded to President Franklin of the Supreme Executive Council a report reading in part as follows:

"I arrived here last evening, and now have the pleasure to inclose the returns of the elections of Justices of the Peace for the County of Luzerne. The intended interruption of one of the elections by the violence of [John] Franklin's party I rather think an advantage to the Government. It has excited a spirit of firmness in supporting the measures of Government, and of resentment against Franklin and his adherents."

From the list of men chosen as aforesaid to be Justices the Council selected the following-named: Matthias Hollenback, William Hooker Smith, Benjamin Carpenter, James Nesbitt, Obadiah Gore and Nathan Kingsley; and to these men commissions as Justices were duly issued, under the date of May 11, 1787. On the same day these several Justices were "assigned" and formally commissioned by the Council "Justices of the County Court of Common Pleas in and for the County of Luzerne, * * * to have and hold the said power and authority for seven years."

It was also incumbent upon these Justices to sit as Judges in the Orphans' Court and the Courts of Quarter Sessions and Oyer and Terminer of the County. The law required, however, that all Courts of Oyer and Terminer should be presided over by a Judge of the Supreme Court of the State, with the local Justices, or Judges, sitting as "Associates".

As noted hereinbefore Colonel Pickering had been commissioned on October 9, 1786, a Judge of the Court of Common Pleas in and for Luzerne County. This was done in accordance with a provision of a State law, the object being to enable the Prothonotary to sign, as Judge, all writs issuing from his office. It was only in very particular or unusual cases that the Prothonotary took his seat on the bench as Judge.

On May 24, 1787, Daniel Hiester, Jr., and Colonel Pickering set out from Philadelphia for Wilkes-Barré, where, as the Commissioners had formally notified the settlers (as related hereinbefore), they were to sit on Monday, May 28, "to perform the duties required of them" as Commissioners under the Confirming Law. Relative to their arrival at Wilkes-Barré, Colonel Pickering wrote to his business partner, Samuel Hodgdon, at Philadelphia, under the date of May 29, 1787, in part as follows:

"More lies have been told in my absence. The capital one was that the people of Pennsylvania [the "Pennamites"] were generally dissatisfied with the law for confirming the Connecticut titles, and that it would be repealed. And this, it was said, prevented the coming of the Commissioners; for we did not arrive here till near sunset on the 28th—the day appointed for our meeting—and the people began to be alarmed. Our appearance, however, has exposed these lies."

On May 29, 1787, the day following the arrival at Wilkes-Barré of Colonel Pickering and Daniel Hiester, the Courts of Luzerne County were formed and opened, as described in the official records of the County in the handwriting of Colonel Pickering, as follows:

"Be it remembered that on the 29th day of May, in the year 1787, William Hooker Smith, Benjamin Carpenter and James Nesbitt, Esquires, Justices assigned to keep the peace, etc., in the said County of Luzerne, convened at the dwelling-house of Zebulon Butler in Wilkes-Barré in said County, when and where the following proceedings were had:

"I.—The commissions issued by the Supreme Executive Council of Pennsylvania to the said Justices, and the other Justices, to wit: Obadiah Gore, Nathan Kingsley and Matthias Hollenback, Esquires, were read, authorizing them to keep the peace, etc., within said County.

"II.—The *Dedimus Potestatem* issued in manner aforesaid to Timothy Pickering, Esq., and Nathan Denison, Esq., impowering them to administer the oaths to persons who were or should be commissioned in said County, was read.

"III.—Then Dr. William Hooker Smith, Benjamin Carpenter and James Nesbitt, Esquires, took the oath of allegiance, and the oaths of office as Justices of the Peace and of the Court of Common Pleas of said County, before Timothy Pickering, Esq.

"IV.—The Courts being thus formed, appointed Dr. Joseph Sprague Crier, and the Court of General Quarter Sessions of the Peace was then opened.

"V.—Then were read the other commissions granted to Timothy Pickering, Esq., by the Supreme Executive Council, constituting him: Prothonotary of the County Court of Common Pleas; Clerk of the Peace; Clerk of the Orphans' Court; Register for the probate of wills and granting letters of administration; Recorder of Deeds, for said County.

"VI.—Then were read the commissions of Timothy Pickering and Daniel Hiester, Jr., Esquires, declaring their appointment to execute the laws of the State for examining and confirming the titles of the Connecticut claimants to lands lying in the County of Luzerne.

"VII.—The Court then appointed Abraham Westbrook of Wilkes-Barré a Constable for the 1st District of said County, Eliphalet Prichard of Plymouth Constable for the 2d District, and Samuel Finch of Kingston a Constable for the same 2d District of said County.

"VIII.—On motion, Ebenezer Bowman, William Nichols, Rosewell Welles and Putnam Catlin, Esquires, were admitted as Attorneys of the said Court and of the Court of

Common Pleas for said County, and took the oath of office prescribed by law."

Writing to his wife from Wilkes-Barré, under the date of May 29, 1787, Colonel Pickering said:

"I have the pleasure to inform you that we this day opened the Courts of Common Pleas and Sessions of the Peace for Luzerne County, when everything was conducted in perfect quiet and good order. Mr. [Andrew] Ellicott, of Baltimore, the Commissioner for running the boundary-line between Pennsylvania and New York [and subsequently Secretary of the Pennsylvania Land Office], happening to be here on his way up the river, delayed his journey a few hours that he might be present at the opening of the first Courts, and, I am told, expressed much satisfaction at the event. Four gentlemen were admitted by the Court to practise as Attorneys in this County. These were Mr. [Ebenezer] Bowman [a native of Lexington, Mass., who came to Wilkes-Barré from Philadelphia] and Mr. William Nichols [of Philadelphia], whom you know, and two young gentlemen from Connecticut [Putnam Catlin and Rosewell Welles], who have been here a few months."

The following item appeared in the *Pennsylvania Packet*, Philadelphia, June 13, 1787. "The County courts for Luzerne were held the last week in May, in perfect quiet and good order. Four gentlemen were admitted as attorneys to practise in the County, two of whom are young gentlemen from Connecticut, who took the oath of allegiance to the State of Pennsylvania in open court. They had appointments from The Susquehanna Company as Secretaries to their Board of Commissioners. In regard to the Company's claims, and the state of the settlement, they were deceived by the lies which have been raised and propagated to support their [the Company's] cause."

On June 2, 1787, Matthias Hollenback, and on June 9, 1787, Obadiah Gore and Nathan Kingsley, "took the oath of allegiance and oath of office as Justices of the County

Court of Common Pleas in and for the County of Luzerne, as prescribed by the Constitution, before Timothy Pickering, by virtue of the powers granted to him by the Supreme Executive Council." Justice Gore was then chosen by his associates "President Judge of the County Court."

In the Act erecting the County of Luzerne Col. Zebulon Butler and four other citizens were named as a Committee, or Board of Trustees, to select a site and erect thereon a court-house and a jail for the new County. These Trustees moved slowly in carrying out the duties assigned to them. One of them—Capt. Simon Spalding—wrote to Colonel Butler July 30, 1787, as follows.

"As I was appointed with you and some other gentlemen a Trustee for to appoint some suitable place for a court-house and gaol in the District of Wilkesborough [Wilkes-Barré], some persons are of the opinion that the most suitable place is the District of Kingston. But I am of opinion that by the Act of Assembly we, the Trustees, have no right to prefix any other place but Wilkesborough."

It having been settled to the satisfaction of the Trustees and others that Wilkes-Barré was, by the Act of the Legislature, intended to be the county-seat, the Trustees naturally selected for the site of the new building the section of the present Public Square whereon had stood Fort Wilkes-Barré—within which, for a time, the Courts were held when Wyoming was under the jurisdiction of Connecticut.

Early in 1788 the work of erecting the building was begun, and by the end of that year it was enclosed so that it could be used, in part, for the purposes for which it was being erected. Meanwhile the business of the various County offices was transacted and the several appointed terms of Court were held in the office of Colonel Pickering—a small frame structure which he caused to be erected early in the Summer of 1787 on the town-lot which he had bought, located on the east side of South Main Street, about half way between Northampton and South Streets.

However, the business of the Courts and the duties of the County officials did not occupy much time, nor entail many burdens on any one, during the first two or three years of the County's existence, as we learn from a letter written by Colonel Pickering to Governor Mifflin of Pennsylvania under the date of August 16, 1791, and reading in part as follows:

"Give me leave to assure you that the business in all those offices together is but of small extent, and consequently but of small emolument—too small to admit of a division. In the Register's office, during a space of more than four years, but about half a dozen wills have been presented. Letters of administration have been more numerous—I think between eighty and ninety have been issued—but they have been chiefly on the estates of persons who were dead before the change of jurisdiction in 1782; and of these the greater part fell victims to the Indians in 1778. The run of these is now over, and scarcely half a dozen letters are issued in a year.

"In the Orphans' Court all the proceedings do not fill a quire of paper. In the Court of General Quarter Sessions of the Peace as little business has occurred as in the Orphans' Court. In the Recorder's office the deeds and mortgages are recorded in separate books, and if united would fill about three-fourths of one folio volume of demi, or about five quires of paper. The Prothonotary's office furnished the most business; but this arose from the like cause with the letters of administration. The business had been dammed up during several years; the law introduced opened the gates, and during three years there was a run of from twenty to forty actions at a term. But the sources have failed, and the stream is greatly reduced. At the last term the number was about eighteen, and ten days ago there stood on the docket but a solitary action for the ensuing term—commencing this day two weeks. * * *

"I need not mention that the Register's and Prothonotary's offices more especially require much law-knowledge;

and the more the incumbent possesses, with the more propriety and facility he will execute them. More than ever, law-knowledge in the Prothonotary will now be useful and important, on account of the increased importance of the Court under the new Constitution."

"Thus Luzerne, being politically organized, Courts established, and the laws introduced under the auspices of Colonel Pickering, he, sustained by the Confirming Law, proceeded with wisdom and promptitude to conciliate the good will of the people, to assuage passion, to overcome prejudice, to inspire confidence," declares Miner in his "History of Wyoming," page 409: "If [John] Franklin was busy, Pickering was no less active. Without, in the slightest degree, lessening his dignity by unworthy condescension, he yet rendered himself familiar, talked with the farmers about corn and potatoes, and with their wives about the dairy—maintaining his own opinions with zeal, yet listening to others with respect. * * * To show his entire confidence in the faith of the State, and the beneficial effects to be expected from the Confiriming Law, Colonel Pickering immediately purchased several tracts of land [in Wyoming Valley] from Connecticut claimants."

Colonel Pickering and his friends and supporters undoubtedly believed, with confidence, that, with the coming of Law and Order to Wyoming under Pennsylvania authority, Peace and Contentment would dwell in the settlements along the North Branch of the Susquehanna, and the people there would prosper and be happy. And yet, within thirteen months after the opening of the Luzerne County Courts, Col. John Franklin had been arrested for high treason and was held a prisoner in the jail at Philadelphia, the Confirming Law had been suspended by the State Legislature, and Colonel Pickering had been abducted from his home by a band of his political and personal opponents, and held by them as a prisoner for two weeks. But all these incidents form another story—to be told later.

ECHOES OF THE MASSACRE OF WYOMING. NUMBER THREE.

By Rev. Horace Edwin Hayden.

Queen Esther and Joseph Elliott.

WAS QUEEN ESTHER AT THE MASSACRE?

Few historical facts connected with the Massacre of Wyoming, Pennsylvania, July 3-4, 1778, have been more frequently questioned than the presence of the Seneca Indian Squaw Queen Esther, who, in revenge for the death of her son at Exeter, July first, two days before the battle, put to death with shocking barbarity so many of the patriots at what is known as Queen Esther's Rock, the day after that action.

The Editor has very often heard the inquiry by visitors to the valley as to the truth of the statement that it was she who really dealt the death blow to those in the circle from which Lebbeus Hammond and Joseph Elliott escaped. In his private library he had an exhaustive collection of the pros and cons in a controversy on the subject by Pennsylvania writers of history, from which collection Sidney R. Miner, Esq., drew for his excellent sketch of this barbarous creature, which he read before the Wyoming Commemorative Association, July 3, 1894.

The matter has been most carefully and finally presented by Oscar J. Harvey, Esq., in his admirable and most accurate "History of Wilkes-Barre," pages 984-985, in which he quotes the doubt thrown on the fact by William L. Stone in his "History of Wyoming," and gives proof beyond doubt that Esther was the Fury of the occasion.

While riding, some years ago, with some guests from Nanticoke to Wilkes-Barre, when the famous Campbell's Ledge appeared in the distance, with the noontide sun shining full on its face, one of the ladies asked the coloured

driver the question: "John, is not that rock before us Campbells Ledge?" The driver replied: "Yes, Miss, that's where Miss Gertrude writ her poem." The driver's mistake is not surprising, when it is known that there are persons who really believe that the poet Campbell, who was never in America, sat on this ledge when he composed his immortal poem.

Stone wrote his "History of Wyoming" in 1840, five years before Charles Miner wrote his "History of Wyoming". One cannot wonder at this day that Stone should have been so easily led astray when he says, page 208: "It has been said, both in tradition and print, that the priestess of this bloody sacrifice was the celebrated Catherine Montour, sometimes called Queen Esther, * * * But the statement is improbable. * * * The remotest belief cannot be entertained that she was the Hecate of that fell night".

The fact is, however, clearly proven by Mr. Harvey beyond doubt. At that time, 1778, Queen Esther lived at Sheshequin, now in Bradford county, about seventy-five miles above Wyoming. Matthias Hollenback was one of the first settlers at Wyoming, where he engaged in general merchandise about 1769. His patrons came from all the sections around Wyoming up to the New York line. Esther was among them. Naturally, as Mr. Harvey says:

"Queen Esther was well known in 1778 to many intelligent and reliable people in Wyoming Valley—as for example, Colonel Denison, Colonel John Franklin and Lieutenant Roasel Franklin—and they united in declaring that she was present and was seen by them at the time of the surrender of Forty Fort.

Peck, in his "History of Wyoming," gives an account, page 154, of a visit which she made to Wyoming in 1777, when she was seen and talked with by Martha Bennet (Mrs. Philip Myers) who also saw her at Forty Fort at the head of the hostile Indians, July 4, 1778."

One other witness has also declared her presence at the bloody rock—Joseph Elliot—whose recollections are given here in describing what happened before his escape, says:

"We were stripped of all our clothing except our shirts and led by two savages each and were marched in file to be tommyhawked by a squaw, whose son, a young chief, was killed at Exeter on the first of July."

Besides all the authorities given by Mr. Harvey there exists among the books and records of Matthias Hollenback, preserved in this Society, a Day Book kept by him from 1773 to 1777, in which occurs the following two items on the same page and in the same juxtaposition given here and which I had photographed from the page:

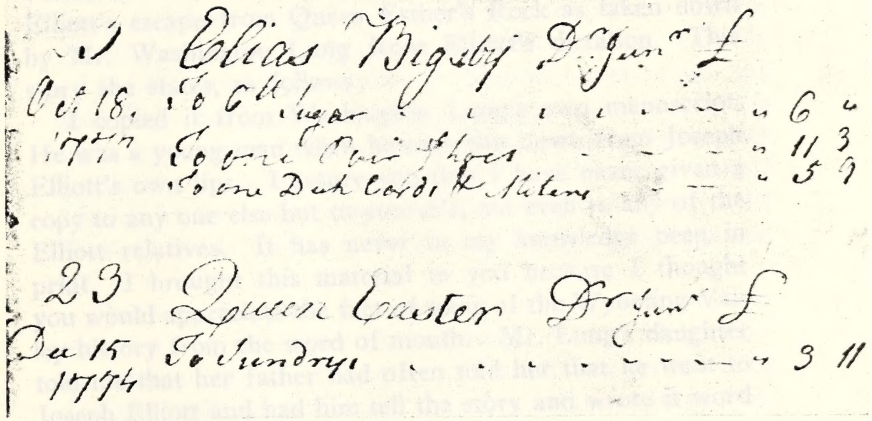
23 Elias Bigsby Dr Junr, L
Oct 18, To 6 lb Sugar 0,6,0
1774 To one Pair Shoes 11,3
To one Duk Card, & Miter....5,9

23 Queen Easter Dr Junr L
Dec 15. To Sundry 0,3,11
1774

Thus Esther was in Wyoming as early as 1774, and was known to Matthias Hollenback and was trusted by him with a bill of goods. This photograph of the charge was taken to aid in the publishing of the Bixby Genealogy, and the two charges are preserved together as they will appear in that work.

JOSEPH ELLIOTT'S NARRATIVE OF HIS ESCAPE.

Among the most interesting articles published by the Editor in volume XII of the Proceedings of this Society, under the above caption, was the affidavit of Joseph Elliott of Wyoming fame in his application for a second pension. That affidavit was discovered by the Editor in the pension office at Washington and refers entirely to his military career subsequent to the massacre of Wyoming. Having received his pension for his services in the action of July



A Copy of a Charge against Queen Esther in Col. Mathias Hollenback's Account Book, 1774.

3, 1778, he applied for further pension for other distinguished services without reference to his Wyoming experience. It was stated there that the affidavit of Elliott by which his first pension was secured was destroyed by the British on the capture and burning of the city of Washington in 1814. Therefore all official record of his early service was lost. Fortunately Elliott had left in the possession of his family a narrative which is here produced for the first time.

During the past year the Editor received a letter from Elliott's great-great-granddaughter, Mrs. Lelia Hallock Bartlett (Mrs. H. Arthur Bartlett) of Wyalusing, Pennsylvania, in which she sent him the following account of Elliott's escape from Queen Esther's Rock as taken down by Mr. Washington Lung from Elliott's dictation. This story she states, as follows:

"I copied it from Washington Lung's own manuscript. He was a young man when he took this down from Joseph Elliott's own lips. I assure you that I have never given a copy to any one else but to yourself, not even to any of the Elliott relatives. It has never to my knowledge been in print. I brought this material to you because I thought you would appreciate the fact of some of the Wyoming Valley history from the word of mouth. Mr. Lung's daughter told me that her father had often told her that he went to Joseph Elliott and had him tell the story and wrote it word for word as Joseph Elliott told it.

"I am trying to get a very faded daguerrotype of Joseph Elliott, the only one known to exist, restored. Should I succeed it would be of interest to the Society to have a copy. It is now so faded that only in one position can the face be seen."

Mr. George Washington Lung was a carpenter and builder of Wyalusing in Elliott's time. He planted the variety of trees around the Wyoming monument at Wyoming, and erected the canopy over the Glen Summit Springs. He is now a resident of Seattle, Washington.

"JOSEPH ELLIOTT'S STORY OF HIS ESCAPE FROM QUEEN ESTHER'S FURY, JULY 3 AND 4, 1778.

Taken down by Washington Lung.

"After I was taken prisoner, I with others was taken to the camp of the Indians and tied so I could not escape and closely guarded by our captors until the next morning. There twelve of us were taken near the second bank of the river with in the now town of Wyoming. We were stripped of all our clothes except our shirts and led by two savages each, and were marched in file to be tommyhawked by a squaw, whose son, a young chief, was killed at Exeter on the 1st of July.

"I was next to the last in the line, Lebbius Hammond the last. I was determined to escape if the least chance offered. As we moved to our turn I saw just ahead of me the body of a fallen tree about a foot in diameter, over which our path led. As I came near it I sprang forward planting both feet against it and at the instant jumping backwards I tore myself away from my guards. Hammond cleared himself at the same moment. We both jumped down the bank. I ran to the river, Hammond turned to the right and hid in a fallen pine tree top.

"Between the place of execution and the river rye was standing. It was higher than my head. It had been trailed by fugitives the day before, as I followed one the pursuing Indians could not follow my path for certain as there were other trails so I gained on them a few minutes. This gave time to get into deep water before they commenced shooting. As soon as I could I commenced to swim under water only raising my head for breath. Once when I came up a bullet hit me under the shoulder blade which disabled one arm, but I turned and swam on my back the rest of the way with one arm.

"As soon as I was over and away from the river I put a piece of my shirt in the bullet hole to stop the blood. I found a loose horse and with a piece of bark for a bridle

rode into Wilkes-Barre. I had a hard time of it for several weeks but being strong I recovered all right."

Elliott's pedigree is briefly added.

HENRY ELLIOTT, born Stonington, Connecticut, 1711, died at Wyalusing, Bradford county, Pennsylvania, December 22, 1808, in the 97th year of his age. His obituary in the Luzerne Federalist January 6, 1809, says, "He was a native of Stonington in the State of Connecticut and emigrated to this country in the year 1776 and experienced at that advanced period of life the dreadful calamity and horrors of an Indian war." He married in Connecticut, Mary Keigwin, born Connecticut, 1715, died at Wyalusing, December 1, 1806, aged 91 years. She was doubtless from Voluntown, Windham county, Connecticut, where John and James Keigwin in 1720 were members of the Presbyterian church, of which Rev. Samuel Dorrance (the ancestor of Rev. John Dorrance, of Wilkes-Barre) was for so many years pastor. John and James Keigwin were members of the Susquehanna Company in 1753.

Henry and Mary Elliott had four sons.

1. Jabez Elliott, killed in the Sullivan expedition. "Aug. 15, 1779, Jabez Elliott, son of Henry Elliott, of Wyoming. A mere lad, a pack horse driver, shot while looking after horses across Chemung." (Murray's "Tioga Point and Early Athens," p. 157.)
2. Henry Elliott, died, before the Revolutionary War, in Orange county, N. Y.
3. John Elliott, moved to Detroit, Michigan, and was an officer in the War of 1812. Probably the one who was in the Expedition of 1793.
4. *Joseph Elliott.* See below.

John and Joseph Elliott settled in Goshen, Orange county, New York, 1774-5, as their names are recorded among the Associators of that county and precinct in 1775. In 1776 Henry Elliott, Sr., and his three sons moved to Wyoming Valley. Their names are on the tax lists of the "Town and

County of Westmoreland for 1776 to 1781. Henry Elliott, the father, alone is on the tax list of Wilkes-Barre for 1776 assessed at £43. On the list for 1777, Henry Elliott was assessed at £54; John Elliott at £19, and Joseph at £21. The three names stand the same on the lists for 1778-1779. On the 1780 list Joseph only appears rated at £40; but on the list for August, 1781, Joseph and Henry are given, Henry rating at £21 and Joseph at £51.

4. JOSEPH ELLIOTT, born Stonington, Connecticut, October 10, 1750, died Merryall, Bradford county, Pennsylvania, March 29, 1849. He married, 1st, Patience Brown, daughter of Thomas and Patience Brockaway Brown. He married, 2nd, at Merryall, October 18, 1787, Deborah Lewis, born November 17, 1770, died February 24, 1840, daughter of Thomas Lewis (1745-1810) and his wife Mary Turrell (1748-1815) daughter of James Turrell (1716-1811) and his wife, Abigail Buck.

Both Thomas Lewis and James Turrell were Revolutionary soldiers. The Government marker on the grave of Joseph Elliott in Merryall cemetery bears this inscription: "He served his country in the Revolution, lived as a Patriot and has gone to his reward."

Children of Joseph and Deborah (Lewis) Elliott:

Roccelania Elliott, b. September 3, 1789, married William Gamble.

John Elliott, b. May 20, 1791, married Marietta Keeler. (See full sketch of him in "Craft's History of Bradford county, Pa.")

Mary Elliott, b. July 10, 1793.

Lewis Elliott, b. June 28, 1795.

Anna Elliott, b. March 23, 1799.

Jabez Elliott, b. November 21, 1803, married Harriet Stone.

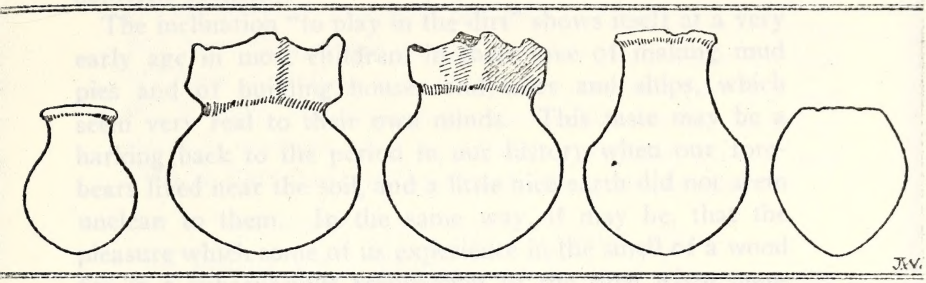
Deborah Elliott, b. June 20, 1807, married George Lerry.

Harry Elliott, b. June 14, 1810, married Euphemia Beeman.

A STUDY OF NORTH APPALACHIAN INDIAN POTTERY.*

By Christopher Wren,
Curator of Archeology of this Society.

READ BEFORE THE WYOMING HISTORICAL AND GEOLOGICAL SOCIETY, APRIL, 1913.



In January, 1905, the writer read a paper before this Society on "The Aboriginal Pottery of the Wyoming Valley Region," which was printed in Vol. IX of Proceedings and Collections.

In that paper the general features of the baked clay ware of the region were discussed, and it was illustrated with fragments only of the pottery, no whole vessels, not already illustrated, being available.

Since 1905 further attention has been given to the study of the subject, and the results of such study are given in this paper. The larger field of the North Appalachian region is taken in, which, roughly speaking, may be defined as the eastern two-thirds of the State of Pennsylvania, northern New Jersey and several of the southern tier of counties of the State of New York, avoiding, however, what is understood to be strictly Iroquoian territory.

The illustrations are very largely of whole vessels, and the exhibit, with but few exceptions, includes all the complete specimens known to be in the region by the writer, at this time. They number about thirty-five examples.

*Copyright by Christopher Wren, 1914.

EARTHENWARES.

The general subject of mankind's work in burned and baked clays and earths is a very interesting one, and we have only to look at a well set dining table to be impressed with the important place which such wares occupy in our domestic economy.

The inclination "to play in the dirt" shows itself at a very early age in most children, in their love of making mud pies and of building houses and trees and ships, which seem very real to their own minds. This taste may be a harking back to the period in our history when our forebears lived near the soil, and a little nice earth did not seem unclean to them. In the same way, if may be, that the pleasure which some of us experience in the smell of a wood fire is a subconscious recollection of the time when mankind dwelt in caves and holes in the ground, in which the air was charged with smoke, as but slight attention was given to ventilation; or the memory may have come down to us from that later time when, in the castle of the chief of the clan or the lord of the manor, a great fire was built on the floor of the main hall, the stag, which was the spoil of the chase, was brought in and roasted, the hall was lighted by the fire and the torches on the walls, the minstrel was called in, and, to the thrumming of his harp, recited the deeds of the clan or people, and the night was given over to wassail, feasting and song. At such a time the smoke laden air was filled with the mirth and laughter of "fair women and brave men".

It may be that the ancestors of some of us were in at the feast among the clansmen, or men-at-arms of the Baron, or peradventure, in some cases as Chiefs or Barons.

At any rate the love of fashioning earths and clays into different shapes and forms is an old one and almost universal among mankind.

No paper on earthenwares, as we know them, would be complete without some mention, at least, of two men who

were the most influential in bringing it to its present state of perfection—Bernard Palissy of France and Josiah Wedgwood of Staffordshire, England. A little space is therefore taken at this place to speak briefly of these two master potters.

At first blush we are apt to think that the making and use of fine porcelain and china wares by our ancestors in Europe has been the practice for a long time; but, when we read the lives of Palissy and Wedgwood, we find that this was not the case, and that opaque earthenware of the nature of common crockery, with very little, or inferior, glazing, was used by Europeans until a comparatively recent date.

BERNARD PALISSY, THE HUGUENOT POTTER.

In looking for a biography of Bernard Palissy, in the Osterhout Library, the writer had the pleasure of finding a copy of the identical edition which he read when a boy of about ten years of age, and it seemed like meeting again with an old friend. The following brief sketch of this remarkable man is taken from that biography.

Bernard Palissy was born, of parents in humble circumstances, about the year 1510, in the Province of Perigord, France. His father was a painter on glass and taught his son the same craft, in which he became expert and acquired a good knowledge of colors and also became skilled as a draughtsman. Besides his work in improving the pottery ware of northern Europe, Palissy worked some at portrait painting and as a land surveyor at different times during his life.

He read all the good books he could find and by study and original research gained a knowledge of chemistry, geology, botany and other branches of natural history.

The science of chemistry was little understood in his day, and it was not until many years afterwards that it was reduced to anything like the exact science as we know it to-day. It may be said that this man was compelled to

do the best he could, in the exploration of a new field, with the very meagre means at his command.

The secret which Palissy sought to discover was the applying of a white fused enamel or glaze to the surface of the opaque earthenwares which were in common use in Europe in his time. If he had but known he might have been saved all his years of hardship by a visit to Northern Italy, where they were in possession of the process which he sought.

The method followed by Palissy, in his researches, was to mix the materials, with which he experimented, in varying proportions, making a memorandum of the formula used in each experiment.

France, at the time in which Palissy lived, was torn and agitated by violent religious dissensions, in which he became embroiled. With the religious troubles into which he got, because of his adherence to the Protestant party, which was in a minority, the extreme hardships he underwent in preparing his materials for his experiments, all of which had to be ground in a hand mill to a very fine powder, and the great difficulty he found in getting enough money to carry on his work, Palissy suffered such hardships that it would seem as though no man could outlive them. In firing his kilns to burn his ware, work which he could not trust to anyone else, he frequently went without sleep for several days and nights at a time, as a failure to keep up the heat in the furnace would have spoiled his whole work for weeks and months.

Palissy studied carefully the whole range of earths and materials until he discovered what was suitable for his purpose. He kept minute details of all his experiences in a sort of diary, some of which makes very interesting reading and from which quotations are given:

"Between the different kinds of argillaceous earths there is so great difference, the one from the other, that it is impossible for any man to be able to relate the contrariety

that is among them. Some are sandy, thin and white, and, for these reasons, a great heat is needed before they are baked properly.

"Such kind of earth is very good for making crucibles, because it endures a very great heat; there are other earths which, on account of the metallic substances that are in them, bend and liquefy when they endure great heat. I have seen some tiler's furnaces of which the arches were in some sort liquefied, that the vaults were quite full of pendant forms, as you see the icicles from the gutters of the houses during frost.

"There are other kinds, which, when they are baked, whether in pottery or bricks, it is needful that the master of the work take good heed, in drawing the furnace, lest it take cold, and, what is more, those who work with it are constrained to stop all the vent holes of the furnace as soon as the batch is baked, because if it felt the very slightest wind in cooling, the pieces would all turn out cracked.

"There are other kinds of earth which are black in their essence, and when baked are white like paper; other kinds are yellow and when baked are red.

"There are some kinds which are of an evil nature, because among them are little stones, which when the vessels are baked, the little stones which are in said vessels are reduced to lime, and suddenly, when they come to feel the humidity of the air, they swell and cause the said vessel to split in pieces where they are enclosed, and this is because the stones are calcined in the baking, and by this means many vessels are lost, however great the labor one may have employed upon them.

"There are other kinds of earth which are very good and very well endure the heat; but they are so vain and lax that one cannot make any high vessels of them, because, when one would form them a little high it sinks down toward the bottom, not being able to sustain itself.

"It is a general rule that all argillaceous earth, and especially the finest, are subject to crackle at the fire before they are baked; for this reason those who work with them are obliged to add to the fire little by little, in order to chase the moisture which is in the work; so that if the pieces which one bakes are thick, and there are many of them, it will be necessary to maintain fire sometimes three or four days and nights, and if the work has once begun to heat, and he who shall conduct the fire do fall asleep, and suffer the work to cool before it be baked in perfection, there is no help, but the work is lost. And by such accident many potters have had great losses. * * *

"I once saw certain modelers of images, instructed in the art of treating earth by hearsay only, and sufficiently new in the knowledge of earths, who, after having made some images, put them in the furnace to bake them, according to their understanding. But when they began to put on the large fire, it was a pleasant thing enough (though not a cause for laughter to us all) to hear the images burst, and make a battery between themselves like a multitude of huguebusades and discharges of cannon. And the poor master was very vexed, like one who has been robbed of his purse; for, the day being come for drawing the images out of the furnace, the furnace was no sooner opened than he saw some with cracked heads, others with shattered arms and legs broken; so the poor man, having drawn his images, was much disturbed, and had trouble enough to find the pieces, for some were as small as flies, and not being able to get them together, he was obliged to make knobs for flags and other matters out of said images. * * *

"Once I had gathered some of the earth from Poictou, and had labored upon it for the full space of six months before I had the batch complete, because the vessels that I had made were very elaborate and of a somewhat high price. Now, when making the said vessels of the earth of Poictou, I made some of them of the earth of Xaintonge,

on which I had worked for some years before, and was sufficiently experienced in the degree of fire which was needed by said earth, and thinking that all earths might bake at a like degree of heat, I baked my work which was of earth of Poictou among those of Xaintonge, which caused a great loss, inasmuch as the work of Xaintonge being baked sufficiently, I thought that the other work would be so also, but, when I came to enamel my vessels, those feeling the moisture, it was an unpleasant joke for me, because as many vessels as were enameled came to dissolve and fall to pieces, as limestone would do soaked in water, and at the same time the vessels of Xaintonge were baked in the same furnace and at the same degree of heat and turned out very well. You see, then, how a man who labors in the art of earth is always an apprentice, and because of the unknown nature of the diversities of earths."

* * *

After Palissy had experimented for many years, he one day burned some ware with success, but found that he could not identify the formula which he had used, so he had to continue his experiments for some years longer before he attained final success.

The rules laid down by Palissy, in his quaint but clear language, contain much of the information which any worker in baked earths must possess, even in our day, to produce successful results. This man lived at a time before analytical or synthetical chemistry has been reduced to a system, and he was thus a pioneer in a new field, groping about in the dark to attain that which he knew could be done, because he had seen actual specimens of it.

After Palissy had reached success the King and wealthy classes of France became his patrons and he made many large figures and works for them to adorn the gardens and grounds of their palaces.

Compared with the artistic pottery and china wares of our day, it has been said that the work of Bernard Palissy

had little artistic merit, but such criticism does not at all detract from the important work which this man did, in opening up a new field, which those who have come after him have merely enlarged.

Palissy had difficulty at times in getting enough wood to keep up the fires in his kilns, in fact in one instance he fed some of his household furniture to the furnace rather than allow the heat to go down. He says that the price of wood was very high in France, it costing the peasantry one-sixth of their income for fire wood.

Upon seeing an entire forest cut down to raise money for its owner, Palissy, at that early time, advanced the doctrine of the conservation of natural resources by suggesting the planting of a young tree when an old one was cut down. He said: "Men cannot prosper by the blood of trees."

Because of his religious beliefs, in which he was very firm, he was at last thrown into the Bastile. The King visited him there and made an appeal to him that he modify his views, saying: "Otherwise I shall be forced to leave you in the hands of your enemies." "Sire," he answered, "I am willing to give my life for the glory of God, and if I felt any regret, it would have been extinguished when I heard my great Sovereign speak the words 'I am forced', for neither you, nor those who force you, can force me, since I know how to die."

Palissy was not executed, however, but died in penury and misery in the Bastile in the year 1590 at about the age of ninety-one years.

Palissy wrote much on a number of subjects, among them agriculture, natural philosophy and religion, besides his writings on the art of making earthenwares. Lamartine, the noted French critic, rates his literary work as of a high order, and there seems to be no doubt that Bernard Palissy, the Huguenot Potter, was a very remarkable man.

JOSIAH WEDGWOOD, OF ENGLAND.

Josiah Wedgwood was born at Burslem, in Staffordshire, England, in the year 1730.

His father and other members of the family were potters and at the time when Josiah was born had been engaged in that industry for several generations. Wedgwood learned the trade of his father and soon commenced to make experiments, with a view to improving the wares that were manufactured in Staffordshire, which he continued to do to the end of his life with marked success.

He took up the study of chemistry, which, even at that late date, was not the exact science which it has become in our day. His acquired knowledge of chemistry assisted him very much in his understanding of the clays and earths used in pottery making. He went to Devonshire, Dorsetshire and Cornwall to procure suitable clays for his experiments, which he brought together at his pottery in Staffordshire, to produce the new varieties of ware which he originated. During his lifetime he introduced at least six new kinds of ware, and it may be almost said that he created a new industry in England.

In the year 1761 Wedgwood received a commission from the Queen of King George III. to make for her a set of cream colored dishes decorated in gold gilt, which he did so successfully that she was very highly pleased. This ware, which was a discovery of Wedgwood's, took the name of Queensware, and we have it to-day in our ironstone china.

That the Queen of England should be much pleased with this ware is an indication that the art of china making, in England, was not yet in a state of much advancement.

Queensware became very popular throughout England, so much so that it displaced the wares of Holland, France and Germany.

Wedgwood established a new pottery under the name of "Etruria" about the year 1779, after he had made great progress in his art. Writing to a gentleman whom he

wished to engage in business with him at this time he said: "I am going on with my experiments upon earths, clays, etc., for different bodies, and shall next go upon glazes. Many of my experiments turn out to my wishes, and convince me, more and more, of the extensive capability of our manufacture for further improvement. It is at present in a rude and uncultivated state and may be easily brought to much greater perfection. Such a revolution, I believe, is at hand, and you must assist and profit by it."

He first invented the ornamenting of wares with colored glazes of various kinds. Adapted the engine lathe to the working of clay, and introduced it into the pottery manufacture.

He improved the artistic merits of his ware, besides the materials of which they were made, and employed the best of artists, so that his products became very popular. He received a large patronage from the wealthy and titled classes of Great Britain for special pieces and sets of his ware.

In prosecuting some infringements of his patents before the courts was said that "he had enriched the pottery of his country with many inventions and improvements, whereby pottery had been raised from a low and declining state to its present condition of one of the most flourishing manufactures in his Majesty's Kingdom."

The Hon. William E. Gladstone, in his address, delivered at the dedication of The Wedgwood Institute, at Burslem, in October, 1863, said about Josiah Wedgwood, among other things: "His most original characteristic merit lay, as I have said, in the firmness and fullness with which he perceived the true law of what we may call industrial art, or, in other words, the application of the higher art to industry; the law which teaches us to aim first at giving to every object the greatest possible fitness and convenience, and next making it the vehicle of the highest degree of beauty, which, with that fitness and convenience, it will

bear; which does not, I need hardly say, substitute the secondary for the primary end, but which recognizes, as part of the business of production, the studies to harmonize the two.

"To have a strong grasp of this principle, and to work it out to its results in the details of a vast and varied industry, is a praise high enough for any man, at any time, and at any place. But was higher and more peculiar, as I think, in the case of Wedgwood, than in almost any other case it could be."

The life experiences of Bernard Palissy and Josiah Wedgwood are seen to have been very, very different. Palissy died in the miserable surroundings of a sixteenth century prison, poor and forgotten. Wedgwood, during his lifetime, reached a position of independent wealth and also attained high social distinction.

The biographies of both of these men, whose life-work was so beneficial and useful to mankind, are in the Osterhout Library and will well repay the time spent in reading them.

CHRONOLOGY OF POTTERY AND CHINA MAKING IN EUROPE.

To bring the subject of pottery and china making, in Europe, before the reader's eye at one time, the following table of dates is given, which shows its progress from a crude to a perfected art.

The art of making translucent china wares had been practiced among the Chinese for a number of centuries before it was introduced into Europe.

Some ordinary clay pottery has been made in Europe from prehistoric times. But the idea that fine earthenwares have been manufactured there for a very long period proves, on examination, to be a mistake.

1518—In this year the first translucent china was brought to Europe from China by the Portuguese.

1530—As late as this date the art of making common opaque china ware in England and continental Europe was in a very crude state.

1630—The fictile and plastic arts were but little improved up to this time, but as tea was introduced into Europe about this year, and there was a need for cups and saucers, the ware began to improve.

1700—Up to this time but little earthenware, except of very inferior quality, was made in Great Britain.

1700 to 1800—At the same time as the Germans of Europe were making and using the Sgraffiatto ware, this ware of good quality was being made from native clays by the "Pennsylvania Dutch" people of our own State.

1575 to 1587—The first successful efforts to make translucent porcelains were carried on at Florence, Italy, by Francisco De Medici, but it was soon discontinued, and was not revived until about a century later.

1664—Claude Reverend made porcelain in Paris, France, about this date.

1695—China ware was also made at St. Cloud, France, in this year.

1700—About this year the first manufacture of the celebrated Dresden ware was successfully carried on by Frederick Bottger.

1700—About this time it became fashionable for the Monarchs of Europe to be patrons of porcelain works. There were factories in Holland, Denmark, Germany and Russia. Italy had a factory as early as 1735.

1745—A porcelain factory was operated at Chelsea, England.

1750—The "Crown Derby" ware was first made with success in England.

1751—The Royal Worcester ware was first made in England.

1745—The manufacture of Sevres china was begun in France, under the patronage of the King, by Charles Adam, because of the great popularity of the English "Chelsea" ware.

1766—The first hard natural porcelain ware, in England, was made at Bristol.

So much has been said about the manufacture of fine earthenwares, in Europe, to bring out the fact that it is a comparatively recent art among Europeans, although the Chinese practiced it much earlier.

That there may be no misapprehension, the explanation is made that the writer is aware of the fine works in earths produced by the Greeks and Romans, but it was principally from the work of Palissy and Wedgwood that we have inherited the art as we have it to-day.

It is altogether probable that, at the time when some of the Indian vessels illustrated in this paper were made, the dishes and cooking utensils of the common peoples of Europe were not of a much better quality, not at all like what we have at the present day.

When we understand the limitations under which the American Indian labored, it does not seem too much to say that he had made fair progress in the art of making baked clay wares, without suggestion or assistance from outside influences. It is, I believe, the opinion of the best authorities on the subject, that the wares being discussed in this paper were made before the Indian had had any contact with the white race.

THE EARTHENWARE OF THE REGION.

"I remember stopping by the way,
To watch the potter thumping his wet clay;
And, with its all obliterated tongue,
It murmured, 'Gently, brother, Gently, pray.'"

—*Omar Khayyam.*

The paper read before this Society in 1883, descriptive of the pottery found in the graves at Athens, Pa., probably, illustrates more whole vessels of the North Appalachian region than have been shown in any single publication up to this time.

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made incidental mention of the pottery of this locality. Prof. C. C. Willoughby, of Harvard University, contributed a paper on "Pottery of the New England Indians", to the Anniversary Volume to Prof. Frank W. Putnam, in which he described wares that seem closely related to specimens illustrated in this paper.

Several eminent authorities who have visited our rooms have expressed surprise that the pottery and stone implements in our collections do not show more specimens of distinctly Iroquoian types.

Under the circumstances, with the meagre data available for study, it is still true, as was said in a previous paper, that the writer has to depend very largely on his own observations in a discussion of the subject. It is hoped that something new may be shown in the present paper which will be helpful to future students who may take up the subject for more exhaustive study.

It may be remarked here that a large majority of the thirty-five vessels illustrated were found under rock shelters, where they were accidentally discovered, generally by hunters or woodsmen. It does not seem to have been a usual custom of the Indians occupying the territory, to bury pottery with their dead, although a few such instances have been noticed, as is mentioned elsewhere.

It is also true that the known places set apart as burial grounds are extremely rare, but the future may bring more of them to light. Under these circumstances, not knowing where to look for pottery, it is a more difficult matter to secure whole specimens in this region than it is in localities where the custom was to bury them with the dead.

In the cases where Indian bodies have been found, it has usually been the single isolated grave of a person who was, probably, buried near where he died.

The rarity of burials and grounds set apart for burial places, in a region where there is so much evidence of occupancy, may raise the interesting question whether the Sus-

quehanna river valley and adjacent territory were much used as a permanent dwelling place by particular tribes or peoples. And whether the greatly diversified implements and utensils found here may not be those of tribes who only temporarily visited the region for the purpose of hunting and fishing, or merely stopped off in their journeys, on the highway of the river, in passing from one section to another. (See also remarks under Steatite.)

Arthur C. Parker, in the paper read before our Society in 1909, on "The Influence of the Iroquois in Wyoming Valley," and printed in Vol. XI, says: "Several historians have called Wyoming Valley the southern door of the Iroquois Long House. The simile sounds well, but, as facts stand, the Iroquois never had a side door. The Wyoming Valley was the south lawn, the game preserve and asylum for dependent tribes. The Iroquois regarded this valley as their own by right of conquest, not by conquest sought as such, but one which resulted from the repeated and extended wars of the Susquehannocks, and their refusal to conform to the plans of the Iroquois League. The Susquehannocks, although of the same original stock, had been bitter enemies of the Iroquois, perhaps since the Mohawks came south from the Laurentian basin—but I am getting ahead of my story, since I prefer to deal with it from an anthropological rather than an historical view-point, for the Wyoming Valley is the centre of more converging lines than one marked Iroquois or Colonial, and the circle inscribed from this centre is one of wide influence in American anthropology, as it is also in American history."

THE REGION.

The region covered by this paper may be described as quite generally mountainous, with narrow valleys quite frequently coming down to the Susquehanna, the largest river in the field, nearly at right angles. It is a peculiarity of the Susquehanna that, along much of its course, it does not run

parallel with the trend of the mountains, which are on both sides of it, but frequently has its course directly through them.

There are a number of places, along the more than two hundred miles of its course southward through the State of Pennsylvania, at which the river valley is considerably widened by the hills falling back to a greater distance, thus making room for wider "bottom" lands. Such enlargements of the valley take place at points where the river has its course parallel to the surrounding hills and mountains.

THE WYOMING VALLEY.

The Wyoming Valley is about three miles wide and fourteen miles long, running nearly due east and west. The "back country" from the valley on all sides for a distance of forty miles, or more, is hilly and mountainous, and but thinly covered with soil suitable for cultivation.

The valley contains the only considerable area of bottom lands for a number of miles up and down the river. At the lower, or western, end of the valley, at West Nanticoke, the river passes out of the valley by having its course directly through the mountain. The floor of the valley has been forced up at this point by some convulsion of nature, forming a rocky barrier and a comparatively still pool of water above it for a distance of about four miles. In early days, before the debris from the coal mines had gotten into the river, this "pool" was seven or eight feet deep in many places, and was a favorable place in which all kinds of fish could live and thrive.

There are a number of other similar pools farther up the river, which were favorable fishing grounds.

These fishing grounds were all known to the American Indian and also to the white population which early came into the valley. There are deeds recorded in the county court house which make mention of shad fisheries, as transferred in the sale of lands.

The mountains round about were, perhaps, as favorable a habitat for many kinds of wild game as was to be found on the North American continent.

May it not be that, because of these very advantages, the Indian tribes, living adjacent to the region, were jealous of any single tribe owning or using the territory, within the boundaries of Wyoming Valley, as their exclusive lands. Is it too great a stretch of imagination to ascribe to the American Indian, a wisdom of statesmanship which would set apart this particular territory as a reserve, to be used intermittently by different tribes for hunting and fishing, under restrictions which were agreed upon between them?

That in this way Wyoming Valley was a kind of "no man's land" which served also the useful purpose of keeping antagonistic peoples from too close contact with each other, and thus removed, to a degree, causes for disputes and strife between them?

In his address before our Society, previously mentioned, Mr. A. C. Parker says: "The Iroquois themselves never occupied the valley in the sense of having lived here in settled towns. They controlled it for about a hundred years, and so greatly did they impress themselves upon its history that they will always have a place in it. To the Iroquois the Wyoming Valley was the asylum of conquered and dependent tribes, the mixing bowl of many nations, from many divergent points. It was the artery through which the Iroquois received the blood which has caused them to persist, as a people, and maintain their national identity."

So far as the writer is able to judge there are many specimens of pottery (potsherds) found in the region, of types used by the Iroquois, the Algonquins, and the tribes living in the country to the southward.

There has been considerable speculation as to whether the Algonquin or the Iroquois controlled and dominated the region, and the more the question is studied, the more

uncertain and complex it becomes. It is hoped that expert archeologists may see something in this paper which will throw some light on this question.

MAN'S NEED OF HOLLOW VESSELS.

It seems evident that mankind quite early in its history felt the great need of hollow receptacles in which to store their surplus foods, to protect them from the weather, the attacks of gnawing and preying animals, and to transport liquids and other necessities from place to place. Receptacles made of skins, woven fabrics, wood and bark were not suitable for these purposes, as they might be penetrated by sharp teeth or become saturated with water.

After the use of fire was learned and the art of cooking was somewhat understood, there would be the additional need of vessels which would resist the action of heat.

All over the world the evidence seems to be that man first adapted, baked and burned earths to serve his primitive needs of such receptacles. The use of metals came later, when man had traveled a long way in his knowledge of the manner of using fire.

Occasion is here taken by the writer to say that, the discussion of the pottery of the American Indian in this paper and his stone implements and weapons in other papers read before this Society, does not imply that he is more interested in the Indian than in the other races of mankind; but these discussions are rather intended to cover the study of universal primitive man, as we see him more near us in the Indian than in any other people. The American Indian also seems to be nearer to us in his processes of thought and manner of doing things than most of the other peoples of the world.

The pottery wares of the upper reaches of the Susquehanna and Delaware rivers, near the southern boundary of the State of New York, seem to be of better quality than those found further south. The clays of southern New

York are composed of disintegrated granitic rocks, and for this reason are better than those found in the coal regions of Pennsylvania, which are largely the result of the breaking down of the soft rocks of the coal measures. Good clays make good pottery ware.

POTTERY KILNS.

In the region being considered in this paper but very few places have been located from which the aborigines got the clay from which they made their pottery.

Mr. Millard P. Murray, of Athens, Bradford Co., Pennsylvania, gave the writer the following description of a place at which he thought the Indians had procured a potable clay and carried on the making of pottery.

Near the extremity of Tioga Point, where the Chemung river forms a junction with the Susquehanna, close to the edge of the water, on the Susquehanna side, he saw a number of years ago, a strata of light colored clay of a fine quality.

On the top of the bank were two circular platforms, about four feet in diameter, paved with stones and slightly depressed in the centre. These platforms showed marks of considerable use, he thought, as the places where the clays were mixed and tempered to fit them for use in pottery making. Built into the bank, adjacent to these platforms, were four steps laid up in stone, which gave evidence of having been much subjected to the action of heat. These steps he took to be the shelves on which the finished vessels were set up when undergoing the process of firing.

In the immediate vicinity was a great quantity of broken pottery, which was probably the fragments of pottery that had been broken in the burning.

About one-third of a mile up the river from these supposed pottery kilns was a village site which showed that it had been much occupied.

Mr. Murray examined this location carefully about the

year 1893, but since that time all signs of it have disappeared because of the erosion of the river bank by the action of the river.

This description, of anything which resembled a pottery, is the only one which the writer has been able to find in the entire region he is writing about. These kilns are more fully described on page 207 of Mrs. Louise W. Murray's work on "Old Tioga Point".

In the making of pottery different processes were used in the region, but this subject is not, as yet, fully understood. Some specimens are illustrated in which the use of the coil method of building up a vessel was used, but the evidence of the general use of this method is not great. It may be that the final surface finishing removed the marks of the coiling, and that it was more common than plainly appears.

As was the practice all over the world, the clays were tempered with some suitable material to fit them for use in making pots. We find that pulverized silica rocks, shells, soapstone, mica and some vegetable material were used in this region for this purpose. It seems that these people had made the discovery that soapstone and mica resisted the action of heat well, and these materials were used in the best and hardest vessels.

The vessels in which vegetable fibre was used became quite porous by the decaying of this substance from exposure to the weather. The purpose of using such material for tempering is more fully discussed under the heading of the uses of the pottery elsewhere in this paper.

It seems reasonably certain that the soapstone or steatite used as a tempering material was brought from the south, and the mica may have been brought from the vicinity of Philadelphia, where mica forms a large per centage of the composition of the rocks, as is seen in the material so much used for building stone.

There is no indication whatever that any effort was made

to produce a surface glaze or enamel, which tends to prove that these people had no knowledge of any such process. This is not, however, strange, when we remember that it was not known in Europe until about the year 1570, when Bernard Palissy rediscovered it, as is more fully described in the sketch of this man's life.

DESCRIPTION OF THE POTTERY OF THE REGION.

Hamlet: "To what base uses may we return, Horatio."

* * * * * * *

Hamlet: "Imperious Caesar, dead and turned to clay,
Might stop a hole to keep the wind away;
O that that earth, which kept the world in awe,
Should patch a wall, t' expel the winter's flaw."

The pottery ware of the North Appalachian region seems, in its general features, to be as good as that of other localities, where the people were subject to the same limitations as to material for use and who lived in the same stage of social advancement. No comparison is intended to be made with the wares of the southwestern United States, where the communities were for a long time living in permanent towns and had become fully acquainted with the clays they used, and had also taken on a higher degree of general culture because of a more highly organized state of society.

The tribes who made the wares under discussion are taken to have been much given to fishing and hunting as a means of subsistence, and were therefore migratory in their habits, not living for any great length of time in one locality.

For a better understanding of the pottery of the region the following brief description is given of some of the distinctive features of the ware illustrated in this paper, as the writer sees them:

MATERIALS USED.—The materials used in the making of the pottery seems to have been the clays of the locality, tempered with some suitable material, some of which were, no doubt, brought from distant points for this purpose.

By locating the sources from which different materials have been procured, evidence of intercourse and travel between various localities have been proven.

Within the borders of Pennsylvania different materials which have high qualities for resisting heat have been discovered in our day. Among them may be mentioned steatite, of inferior quality in Lancaster county, and near Easton, Northampton county; asbestos, talcs and fire clay in the Allegheny mountains in the central part of the State, and mica in the rocks near Philadelphia.

It is difficult to detrmine to what extent these different materials were known and used, when they are in combinations with other materials in a tempered clay.

FORM—In form the vessels of the region varied over quite a wide range, as may be seen in the illustration shown in this paper.

The sketch, Fig. 1, page 167, includes about all the features seen in vessels, and is given for purposes of reference when describing any particular feature. It may be said that in few instances do all the features show in any single specimen.

Handles, feet or any arrangement of the base of the vessel on which it would stand firmly are entirely wanting, the base being always rounded. These people had not yet discovered or invented the tripod.

The general proposition is true that all vessels were well proportioned and symmetrical, and have a certain dignity about them. In no instance is any feature emphasized or exaggerated so much as to give the vessel a distorted or grotesque appearance.

Attention is called to the resemblance of the side profile of Figs. 1 and 4, Plate No. 7, and several other specimens shown, to the profile of the typical birch bark canoe. This feature, somewhat modified, is also seen in Fig. 3, Plate No. 8. This was a favorite design and decoration for the pot rim in the region, and comes the nearest to a set pattern, frequently copied, known to the writer.

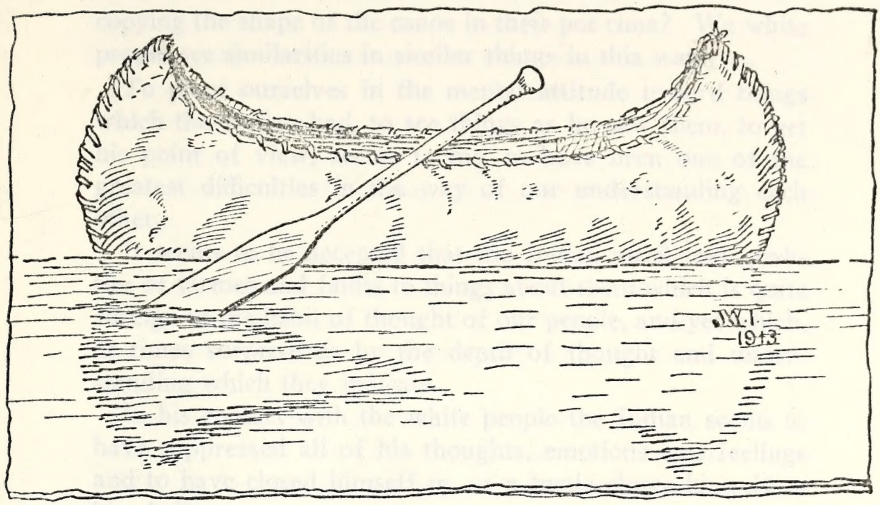
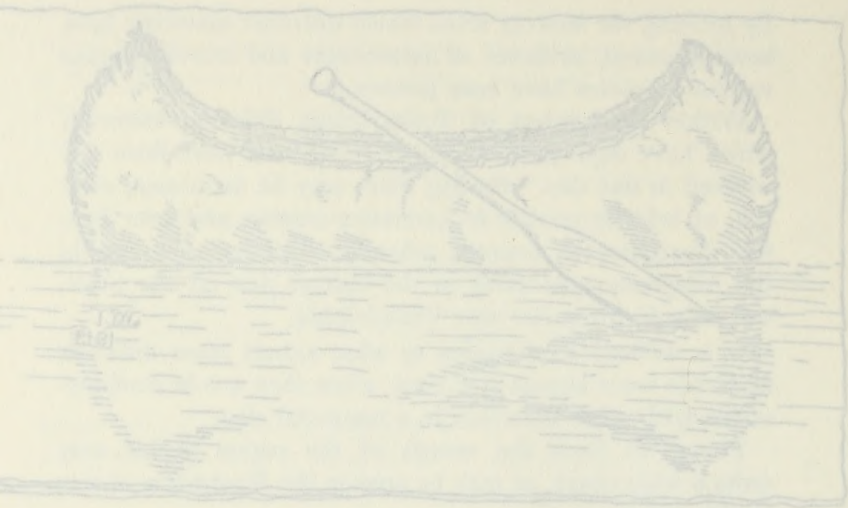


Fig. 4. Indian birch bark canoe. Compare with profiles of pot rims of Figs. 1 and 4, Plate No. 7.

May it not be that this shape of rim was suggested by the canoe, which among water craft has not been excelled, for gracefulness of outline and adaptability for passing smoothly through the water, in any part of the world.

It seems that good authorities accept it as a fact that some of the American Indians, by analogy, associated their food vessels with the preservation of their life and good health, by ministering to their needs and necessities. That they recognized this personal service to the owner of the vessel, by burying it with his body, after having first "killed" the vessel, by breaking a hole in the base of it, so that it should not be used for a like purpose by any other person.

Is it too great a stretch of imagination to think that, by a similar analogy, they may have associated their canoes, which were a medium for transportation, with their food vessels, which were helpful to them in their journey through life, and that they may have typefied this resemblance by



copying the shape of the canoe in their pot rims? We white people see similarities in similar things in this way.

To place ourselves in the mental attitude toward things which the Indian had, to see things as he saw them, to get his point of view, seems to me, to have been one of the greatest difficulties in the way of our understanding each other.

It seems to be accepted that the Indian attributed qualities of virtues and faults to things about them which is quite foreign to the habit of thought of our people, and yet which, at times surprise us by the depth of thought and understanding which they indicate.

In his contact with the white people the Indian seems to have suppressed all of his thoughts, emotions and feelings and to have closed himself in, as a turtle closes himself in his shell.

In his attitude toward and treatment of the Indian the white man put on an air of "don't care a continental" and the Indian was pushed into the background.

In these latter days both peoples seem to be finding themselves, and the future holds out promise of better things.

Canassatego, the Onondago, acted as the spokesman for the six nations at the conference with the representatives of the Proprietaries at Philadelphia in 1742, at which a goodly slice of the State of Pennsylvania was sold for a price to the Proprietaries. The few hundreds of dollars worth of goods paid were acknowledged as a compliance with the terms of the agreement, but Canassatego said: "If the Proprietary had been here he would have given the Indians more, in consideration of their numbers and poverty. *They knew the value of their lands, they knew, too, that the land was everlasting and the few goods were soon worn out and gone.*" The bargain was closed, the price was paid, and it was a good legal sale, but the whole transaction showed that the Indian was not fitted to cope with the more astute white man in matters of this kind. Nevertheless, did not this

Indian orator, in his direct and simple language, express as full and clear an understanding of the values involved in the matter under consideration, as could have been shown by a Daniel Webster, a William E. Gladstone, or the most learned statesman or diplomat?

We may, therefore, be too apt to underrate the acuteness of the Indian mind and the fullness with which he sees some things.

In this view of the matter, any speculations or suggestions, no matter how far they may seem to be wide of the mark, which have the least basis of probability in them, may not be entirely worthless, but they may at times lead to important truths.

It is in this sense of speculation, that a number of things may be said in this paper, which at first blush may seem "like the two grains of wheat which were hid in the bushel of chaff," and "which are not worth the search."

This is said as an explanation of, and not as an apology for such things as may be written into this paper, and which are not to be taken at all as a finality of the matter discussed, as the writer has no pet theories to work out or fortify by specious statement. The ultimate truth is the object in view at all times.

Other variations in form will be seen in the numerous vessels shown, and it is hoped that they will be valuable and helpful to a better understanding of the whole subject. The initiated may see things in them which are unseen by the casual observer.

Most of the vessels of the region have a flaring mouth formed by the contraction at the neck just below the rim. This shape of mouth may have been made so as to form a seat or resting place for a cover with which to close the vessel and thus keep out ants and other insects from the contents of the vessel. Plate No. 27 is shown for the purpose of illustrating the flat disks which may have been used in this manner as pot covers. These disks were, without

much doubt, used as net sinkers, but they may also have had this secondary use.

The pointed base seen in so many of the vessels, as has been often said, may have been so made for the purpose of setting the vessel more firmly in the earth; these people may have also discovered that such a shape would better support the vessel when in a "green" state, during the process of building it up, as the tendency to collapse would be somewhat overcome by a better distribution of the strain on the walls of the pot, as it curved toward the base. Such a form of base would also, perhaps, better distribute the load when the vessel was filled and in use.

METHOD OF BUILDING A VESSEL.—The method in which vessels, especially the larger ones, were made, is not fully understood at this time and there does not seem to be anything in the specimens themselves which will assist to a better understanding of this process.

Several of the illustrations show fragments which plainly indicate that the coiling was somewhat used, as they were fractured at points where the welding of the coil into a perfect joint was faulty and weak. Sometimes what the metal worker calls a "butt" weld was used and sometimes a "lap" weld, when using the coiling method.

Prof. C. C. Willoughby, in his monograph on "Pottery of the New England Indians," page 86, says: "Of the many potsherds examined by the writer, but one or two show evidences that the vessel was constructed by coiling. It is probable, however, that this was the common method followed." This might be repeated as relating to the pottery of the North Appalachian region, increasing somewhat the percentage of specimens in which the coiling is seen.

Future investigations may throw more light on the processes used in making these vessels.

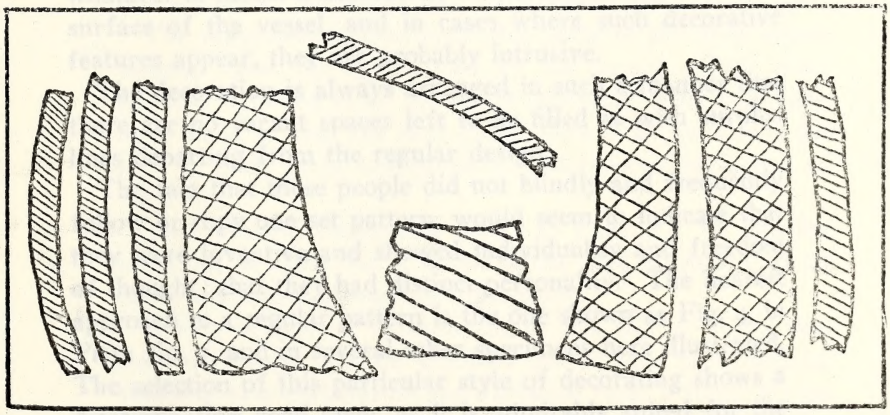
SIZE OF VESSELS.—It has been generally thought that no large vessels were made in the region, but the three large vessels illustrated in Plates Nos. 1, 2 and 3, prove this to have been a mistake.

These three vessels were all found buried in the earth, *not in graves,* and their discovery in this manner leads to the hope that other similar specimens may be found under the same conditions. Within the past year the writer has seen large fragments of a number of other large vessels which were buried in the manner described, a few of which are shown in this paper.

A number of the fragments in our Society's collections may be parts of larger vessels than would be supposed. The rim of the vessel shown in Plate 3, seen by itself, did not suggest that the vessel was as large as it proved to be when fully restored.

The range of capacity of the pottery varies from 48, 46 and 34 quarts in the three largest specimens to a fraction of a pint in the smallest ones. The very small vessels shown are from Athens, Pa., and may safely be classed as Iroquoian.

THICKNESS OF WALLS.—The thickness of the wall or shell in different vessels varies considerably, and it varies frequently in different parts of the same vessel. Specimens are in our collections which are not thicker than one-eighth (⅛) of an inch, and other specimens are as thick as three-fourths (¾) of an inch, and in very rare instances one (1) inch.



Sectional view showing range of thickness in walls of Indian Clay Pottery, Wyoming Valley, Penn'a. (Full size.)

Sectional view showing range of thickness in walls of Indian Clay Pottery, Wyoming Valley, Penn'a. (Full size.)

The greatest thickness is at the base, except in some cases where to produce the overhanging cornice of the collar, the clay was thickened at that point. From the manner of making the vessels, it seems that the workman could not tell how thick the wall was, as the same zone in a vessel varies considerably in thickness. In other cases it is remarkable with what exactness a uniform thickness of not more than one-eighth of an inch was maintained throughout the vessel.

DECORATION.—When we consider the limitations under which these peoples worked, using almost entirely parallel incised lines, arranged in different combinations, to work out their results, it is remarkable the variety of effects which they produced.

In the ware, which the writer believes to be distinctive of the territory, the decorations consists, almost without exception, of incisions in the soft clay, either by the use of a sharp instrument or some simple form of a stamp. The latter method is very rare, and, perhaps, should not be mentioned as indigenous to the region. There was no effort whatever to model a decoration which was raised above the surface of the vessel, and in cases where such decorative features appear, they are probably intrusive.

The decoration is always arranged in such a manner that there are no vacant spaces left to be filled in with surplus lines departing from the regular design.

The fact that these people did not blindly and frequently follow or copy one set pattern, would seem to indicate that they were inventive and showed individuality and freedom of thought; that they had distinct personality. The nearest approach to a regular pattern is the one shown as Fig. 4, in Plate No. 7, and in several other specimens here illustrated. The selection of this particular style of decorating shows a discriminating good taste, as it is admirably suited for the purpose and is in harmony with the entire vessel.

It may be that some of the markings on vessels which we take to be solely for decorative purposes served a more use-

ful purpose. The potter had learned by experience that when firing the vessel to bake it, it was necessary that the heat be applied uniformly and equally to all parts of the work, in order to prevent unequal expansion and consequent cracking and breakage. The description by one of the earliest observers of the Southern Indians has been frequently quoted, but to bring the matter together at this place, it is repeated here: "They set their cooking vessels upon a heape of erthe to stay them from falling" and then "putt wood under which being kindled one of them taketh care that the fyre burn equally rounde about."

Mr. M. R. Harrington, in reporting his observations in "The Last of the Iroquois Potters", of the making of pottery by these people in North Carolina, in the year 1908, fully describes the whole process and makes mention of the care taken to apply the heat evenly to the entire vessel while it is undergoing the baking.

It therefore seems plain that these people fully understood the evil effects of an unequal application of heat to an earthen vessel, and that it was necessary to be mindful of this whenever the vessel was subjected to heat.

The suggestion is here made that some of the deep indentations, *upon the upper part of the vessel,* which were farthest removed from the direct action of heat, may have been made so that the heat could more fully penetrate the shell at these parts, and produce a more even expansion of the shell.

The "beaded" decoration shown in Plate No. 16, and the markings in Plate No. 2, illustrate the idea suggested, as do other specimens throughout this paper.

It may be said of decorations, as was said of form, that they are always sensible, dignified and in good taste, and, by avoiding over-elaboration and variation from a single design in the same vessel, indicate a natural sense of the artistic.

It is suggested that, when the natural characteristics and traits of the American Indian have had the advantage of

systematic cultivation, they will develop talent in an artistic and esthetic direction, not only in form and decoration but in color and music.

USES.—From the shape, thinness of the shell and other fragile features of the earthenware of the region, it seems doubtful whether many of the vessels found were used directly over the fire. Some of them were undoubtedly so used, however, as is indicated by the fire mottling upon them.

It may be that they did not cook their food nearly as much as we do, but ate it in a more nearly raw state. The writer thinks that the greatest use made of the pottery of the region was for storage purposes, and for transporting water from the nearby spring and to keep a supply of it on hand for use as needed.

A use which is suggested by such vessels as were tempered with a vegetable substance, is, that they were used as medicine jars. That in such vessels as are described under Plate No. 19, the mother may have kept her supply of household remedies, composed of roots and herbs, steeped in water, and that the walls of the vessel itself contained a part of the medicinal properties in the material with which it was tempered. Such vessels do not seem suited for any other use, because of their fragile nature. Vessels made of clay, tempered with shell, may also have been medicine jars, the water in which may have gotten mild therapeutic properties from contact with the calcined shells.

It is well understood that when the American Indian first saw the metal hollow ware of the Europeans, they at once recognized its superiority to their own baked clay vessels.

In a number of cases of purchase of lands in Pennsylvania from the Indians by the Proprietaries, a part of the purchase price paid was metal pots and kettles, as is enumerated in the Archives of our State.

As a specific example of their appreciation of the metal pots, the following incident is quoted from Mrs. Louise W.

Murray's book on "Old Tioga Point," page 240: "In the spring of 1784, Jacob Snell and family poled up the river, coming from Stroudsburg. * * * Snells were the first permanent settlers in the township [at Athens, Pa.] the family continuing in the valley to the present date. * * * The Snells found a few Indian families on the point [Tioga Point]. * * * They were friendly, however, especially the squaws, who were frankly curious as to the belongings of the family, even the clothing. They were very covetous of the cooking utensils, whose use they understood. One squaw in particular frequently borrowed an iron pot, which with other cumbersome utensils, was kept on a bench outside the cabin. One day she was told it could not be spared, but when a little later Mrs. Snell wished to use it, the kettle was missing. The squaw was rapidly paddling her canoe across the river, but when she saw Mrs. Snell she stood up and called gleefully: 'Me pottie, me pottie.' This clever trick so amused the owner, that, for harmony's sake the coveted pot was left in the squaw's possession."

No whole vessels are illustrated in this paper which were found south of a line drawn east and west from Sunbury, Pa. Considerable correspondence with parties living south of this line has failed to locate any whole pottery. It is quite probable that such are in existence but the writer could not find them.

AGE OF POTTERY.—There are certain features or characteristics in the appearance of things which are very old, which are seen by the practiced eye, that are not easily describable. This is peculiarly the case with such things as have been buried in, or had long contact with the earth. The experienced eye is able to distinguish changes that are taking place in even the hardest rocks, and to the careful observer it is plain that all things are in a state of continual change.

The pottery ware of many parts of the southwestern United States, which are known to be very old, bear marks

upon them which indicate this great age. While they are made of hard material, are often perfectly smooth on the surface, offering no irregularities for the "tooth of time" to gnaw them, yet they have this old look.

Using centuries and not single years as the unit for measurement, it does not seem, from its appearance, that the pottery ware of the North Appalachian region has very great age. There are evidences of oldness seen in it, and yet it has a freshness and brightness about it generally, which gives it an appearance of comparative newness.

This may indicate one of two things, either that the peoples of the eastern United States had not practiced the art of pottery making for a very long time, or, that they had not lived in the territory for a great many years, when America was discovered by the Europeans.

The first proposition has been frequently advanced and discussed by writers on the subject, so it will be passed by and some attention will be given to the second proposition.

A HYPOTHETICAL CASE.

There are more or less definite claims made, based on old Scandinavian Sagas, that the Norsemen visited America a great many years ago and returned again to their own country.

There are also some traditional and legendary accounts of a visit by some of the sea-faring Welsh people to this country in centuries long past.

From time to time we hear of some new sign being discovered which gives evidence of a visit to America by Europeans at some time in the distant past.

When Marco Polo visited the new and strange countries lying to the east of Europe and returned to give an account of the strange peoples he had seen, the cities he had visited and the customs of the distant lands, his stories were given but little credence, and he was treated as a charlatan and a fabricator of falsehoods and mythical stories. Later information, however, leads to the belief that he did actually

visit the countries which he described and saw the peoples whom he said he had seen. Other explorers have returned from their travels, only to meet with doubts and criticism at home.

Taking it for granted that the human race was dispersed over the earth from a point near the boundary line between Europe and Asia, it is a natural inference that they migrated from that location in an eastern and western direction; those traveling east going toward the Pacific ocean and those traveling west toward the Atlantic ocean.

Those who had gone eastward would eventually come to the ocean, and, let us suppose that the more venturesome and restless among them, found in time that there was a chain of islands stretching out into the ocean, or that they found to the northward that there was but a narrow channel of water, which separated them from other lands still farther to the east. We will further suppose that they eventually crossed over to the western shore of America by either of these two routes, and found a lodgment along the Pacific coast line. They would then have the entire continent of North America before them for exploitation. We will leave them there for the present.

The wave of emigration which had gone westward would travel across the lands which now constitute Europe, and in due time would have come to the shore line of the Atlantic ocean. This presented to them a vast body of endless water, which offered no hint of what lay beyond. There were no islands to use as stepping stones in venturing out on the mighty sea, nor any narrow channel across which they could hope to pass into a new and great continent.

The Europeans having met this impassable barrier were compelled to adjust themselves to the conditions surrounding them, to till the soil carefully to gain a subsistence, to build cities and to form themselves into compact communities in which they lived.

Now to go back to those people who had made a lodgment

on the Pacific shore, they found eastward of them high and snow covered mountains, which they would have to pass in their further progress eastward. And after they had crossed these mountains they would find barren and desolate plains, to live on which would require a readjustment of all their habits of living. It would take them many, many years to overcome the difficulties which lay before them. But we will take it for granted that they overcame all these adverse conditions and are moving across the American continent. They have traveled many miles, and it is safe, perhaps, to reason that, because of a migratory mode of living, they did not take on the culture of that portion of their people which did not journey with them, but settled at favorable points along the route in permanent towns or villages. The moving mass may have brought away with them such arts and customs as were practiced by the people at the time they separated from each other.

We will suppose again that they have traveled eventually across the American continent from the Pacific to the Atlantic ocean.

Returning to our own forebears who had come to the seemingly impassable barrier of the Atlantic ocean. The only thing which could bring them to a knowledge of the great land of America, which lay beyond, was that a man appear who would lead them at one move directly across this great expanse of water.

We know that such a man did appear in the person of Christopher Columbus, and that they first came to America in the year 1492.

In such journeys as have been described, it is plain that people traveling in either direction would have met with obstacles and difficulties along the route, and that they would have been on the way for a long period of time.

The suggestion is made that, when America was discovered in the manner of which we have full knowledge, such people as they found here had not been long in possession

of the land, but were also comparatively new-comers, from the westward.

The distance from the Caucasus mountains in eastern Europe, traveling eastward in a straight line, near the fortieth degree of north latitude, is approximately 11,000 miles to New York City; about 6,000 miles of which would be land travel crossing two continents, and about 5,000 miles across the Pacific ocean.

From the starting point, traveling westward, the distance is about 4,500 miles, 1,500 miles of which would be land travel across Europe and 2,500 miles across the waters of the Atlantic ocean.

The question may be asked why, under all the conditions met with, a party moving eastwardly should reach the Atlantic coast line much earlier than a party which had moved toward the west?

It is not to be presumed that any such migrations of mankind were made along straight lines, and yet it is a curious coincidence that in man's movements in changing his abode he has kept pretty close to the latitude in which he was accustomed to live.

Now to return again to the European legends and traditions of early visits made to the land of America for further consideration.

It is a noticeable fact that, when explorers have returned from their travels, their accounts are very largely given up to descriptions of the strange peoples whom they saw and to their personal appearance, peculiarities in dress, customs, the houses they lived in, in fact the human interest seems to have engaged their whole attention, almost to the exclusion of other things.

It is true that, here and there, incidental mention would be made of the animal life, as it differed from that they knew at home, some rivers and mountains might be mentioned when speaking of their journeys, but *man* himself was the chief topic of interest. A fuller knowledge of the

animals and the geography of the new land was only had after other visits to the strange country.

It has been held as a fatal omission in the traditions of early visits by the Scandinavians and Welsh to the land of America, that they failed to mention or describe the peoples whom they found there. Would not this omission be fully and naturally explained, if it were known that they saw no people along the Atlantic seaboard, because the people from the west had not yet reached that point, a thousand or so years ago, when it is intimated that these earliest European visits were made to this continent.

If this hypothesis were to prove true, it would also be a fact that, when the white man first met the red man, on the eastern slope of America, the farthest outposts of the two waves of migration which had spread from the cradle of our race would have impinged again upon each other, after untold years of separation.

That then, for the first time the human family had girdled the earth in its travels; that brother had met brother again, but so changed by time, climate, conditions of living and the different lines along which each had developed himself, that they did not recognize the kinship between them.



But to get back to the starting point, the momentous question of why the North Appalachian pottery does not seem very old, would be answered.

This may be all idle and useless speculation, and yet there may be some germ of truth in it.

"Oh, East is East, and West is West,
and never the twain shall meet,
Till earth and sky stand presently at
God's great Judgment Seat;
But there is neither East nor West,
border, nor breed, nor birth,
When two strong men stand face to
face, tho' they come from the ends
of the earth."

—*Kippling.*





Plate No. 1. The WILLARD A. HAKES Indian Jar (capacity, 48 quarts; about one-half actual size).



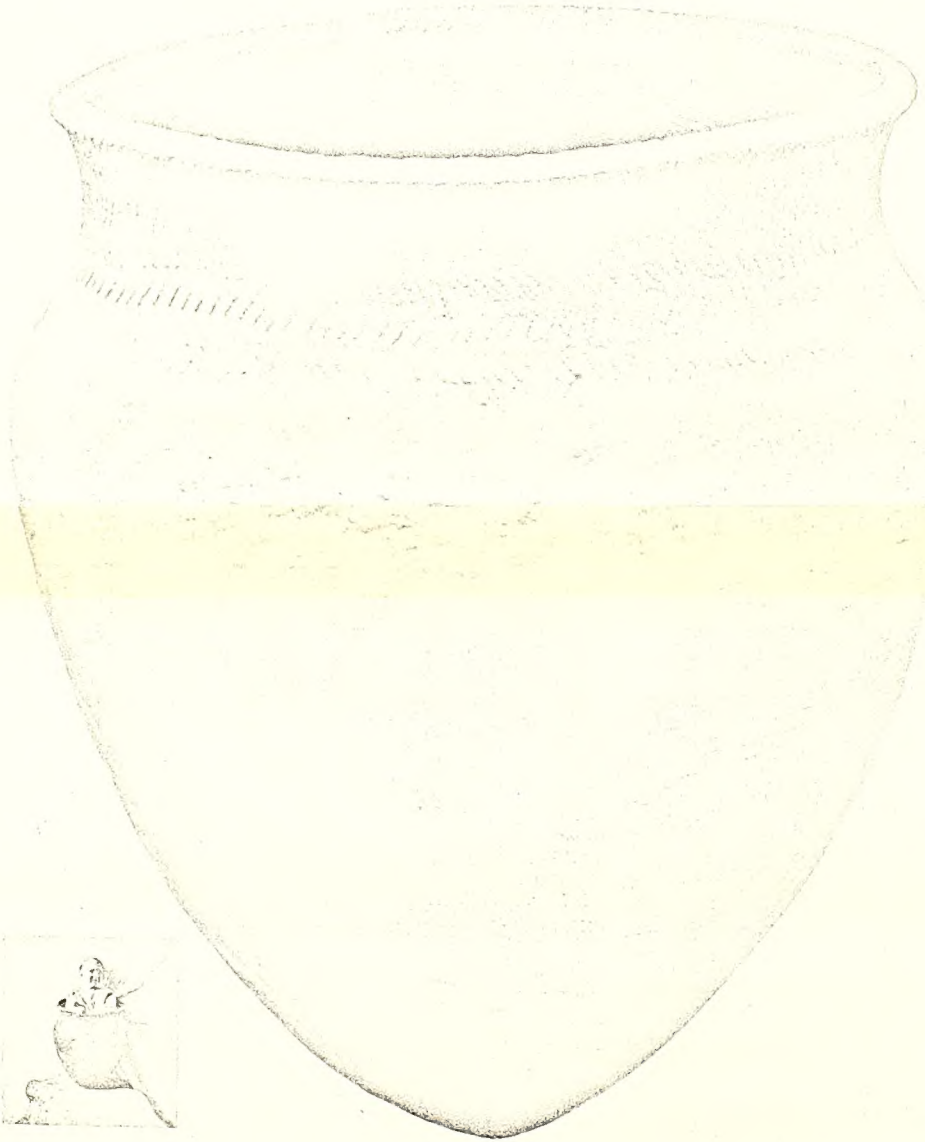


Plate No. 1. The WILLARD A. HAKES Indian Jar (capacity, 48 quarts; about one-half actual size).



PLATES ILLUSTRATING THIS PAPER.

Plates Nos. 1, 2 and 3 illustrate the three largest clay vessels of which the writer has any knowledge, which have been found in the North Appalachian region. They are unusual, because of the great size of the vessels and are interesting as showing three distinctly different forms.

It would have been advantageous if all the specimens could have been illustrated on the same scale, relative to actual size, but the size and shape of the page prevented this; however, the three largest vessels are shown so as to very nearly carry out this idea.

To obviate to some extent the different scales used, measurements are given of most of the specimens, so those interested may form some idea of proportions by setting a rule by the side of the picture.

An effort has been made to suggest the natural colors of some of the vessels by the color of the ink used in printing them.

The capacities in all cases are given in liquid measure, 231 cubic inches to the gallon.

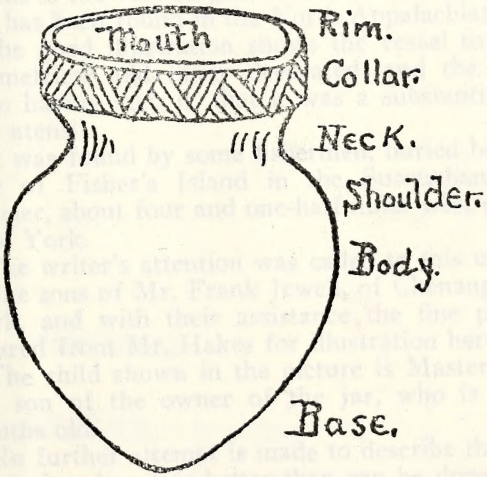


Fig. 1. Outline of a vessel, showing the different parts which are referred to in this paper.

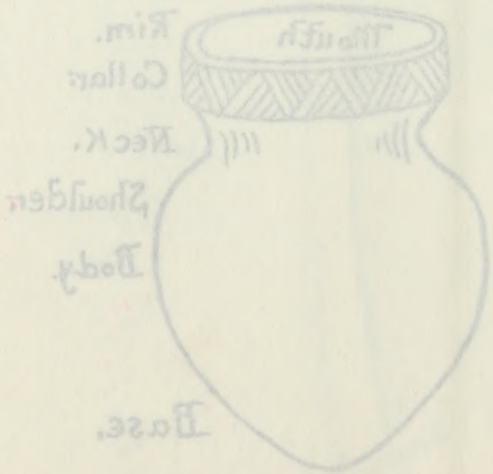


Fig. 1. Outline of a vessel, showing the different parts which are referred to in this paper.

Some casual readers may think that the minuteness of detail in describing the specimens is unduly exact, and it may be said on that point, that this is done for the benefit of the student of Indian pottery. On the other hand, where the scientific student may think there are too many disgressions from a close following of the subject, this has been done with a view to interest the average reader. There are, no doubt, some things in the paper which may seem to all readers as mere idle speculation and "going a wool gathering;" such things are written merely to please the writer's own fancy. The hope is that all may find something of interest in this discussion of Indian Clay pottery.

The fact has been kept in sight at all times that the things written about were very *real* things to a *real* people, who, in their own way, lived a life just as *real* as the lives we are living to-day.

DESCRIPTION OF PLATE NO. I

Plate No. 1 illustrates the Willard A. Hakes Jar. This beautiful specimen of Indian handiwork is 23 inches high and 17 inches in diameter at the largest part of the body. Mr. Hakes writes me that it holds 48 quarts, liquid measure, and that the walls are one-half inch thick.

This is the very largest vessel of which the writer knows that has been found in the North Appalachian region.

The good illustration shows the vessel to be beautifully symmetrical and finely decorated, and the writer knows, from having seen it, that it was a substantial and serviceable utensil.

It was found by some fishermen, buried beneath the surface of Fisher's Island in the Susquehanna river, near Hooper, about four and one-half miles west of Binghamton, New York.

The writer's attention was called to this unique specimen by the sons of Mr. Frank Jewell, of Chenango Bridge, New York, and with their assistance the fine photograph was secured from Mr. Hakes for illustration here.

The child shown in the picture is Master W. A. Hakes, Jr., son of the owner of the jar, who is about eighteen months old.

No further attempt is made to describe this vessel, as the engraving does this better than can be done in words. To appreciate its size it needs to be seen.

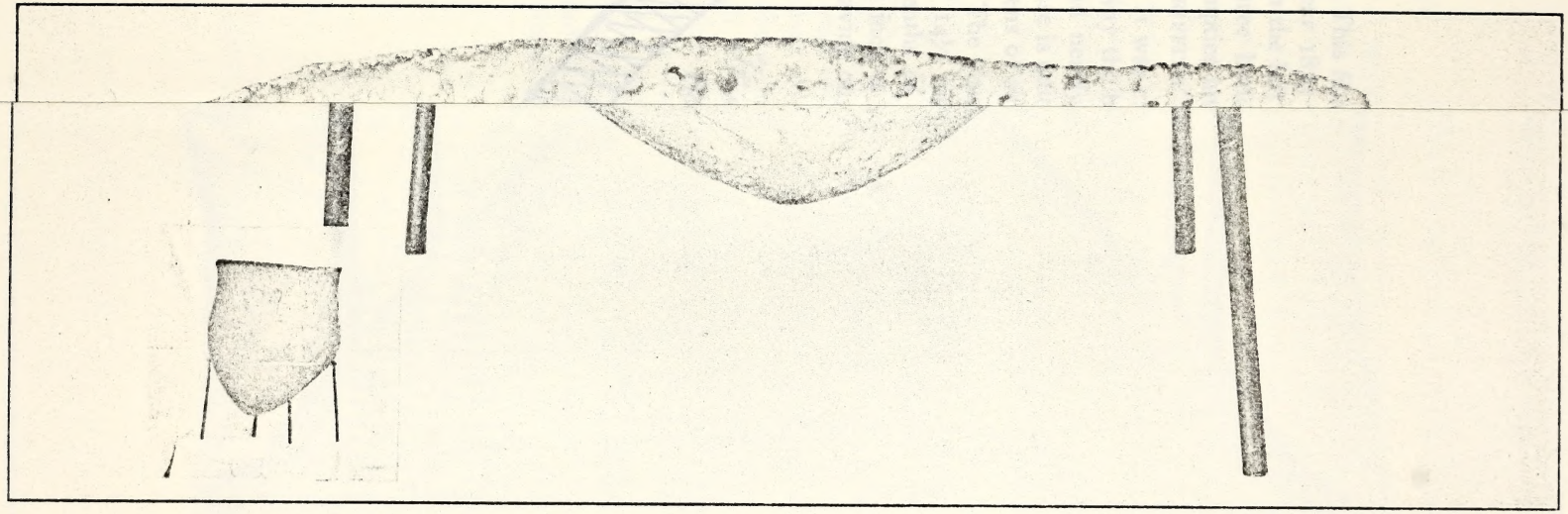


Plate No. 2. The A. J. GRIFFITH Indian Bowl (capacity, 34 quarts; about one-half actual size). In the collections of the Wyoming Historical and Geological Society, Wilkes-Barre, Pa.

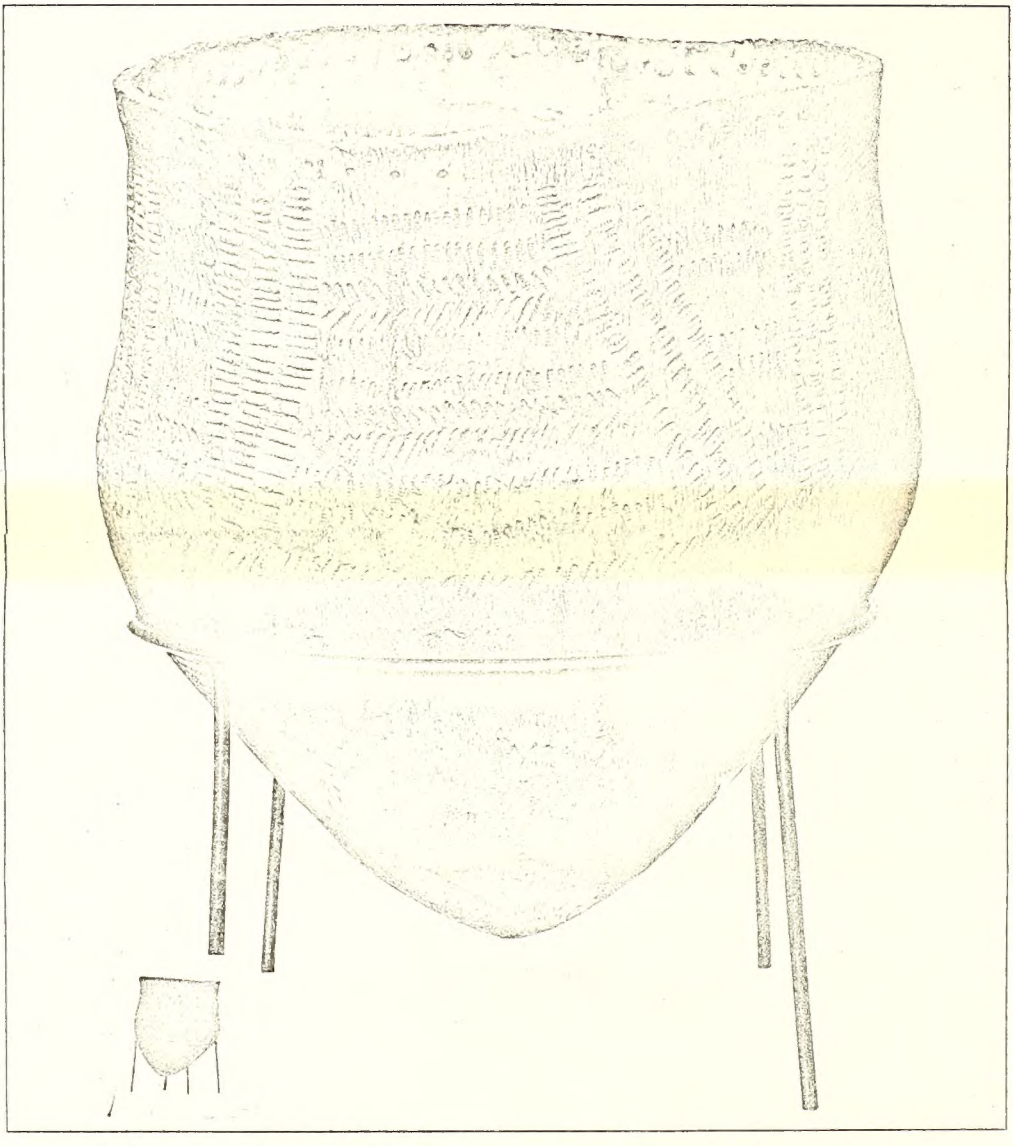
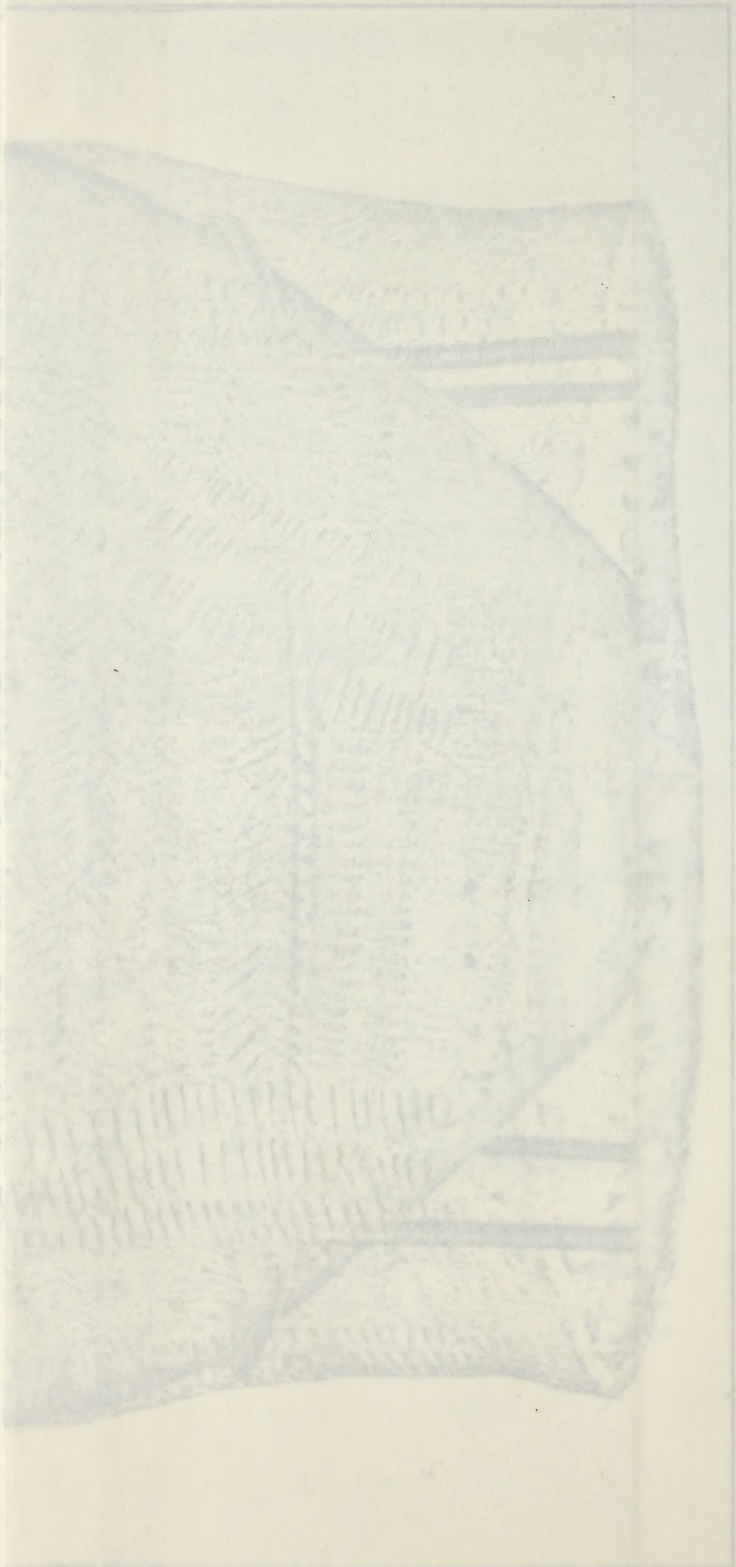


Plate No. 2. The A. J. Griffith Indian Bowl (capacity, 34 quarts; about one-half actual size). In the collections of the Wyoming Historical and Geological Society, Wilkes-Barre, Pa.



DESCRIPTION OF PLATE NO. 2.

This fine example of an Indian skill was found about the year 1873 by Mr. A. J. Griffith, of West Pittston, Penn'a, on the left or eastern bank of the Susquehanna river, about three hundred yards above where the Lackawanna river empties into it. We have given it the name of "THE A. J. GRIFFITH" Bowl.

It was exposed by one of the freshets in the river cutting away the bank. When Mr. Griffith found it he thought he had nearly the entire vessel. It will be noticed that the base is quite noticably conical, as were doubtless other specimens of similar type, of which we have large fragments.

The vessel is 17 inches high and has a greatest diameter of 14½ inches, with a thickness of walls of about five-sixteenths of an inch, which is increased to three-fourths of an inch at the extreme base, as is shown in the line of engraving on this page.

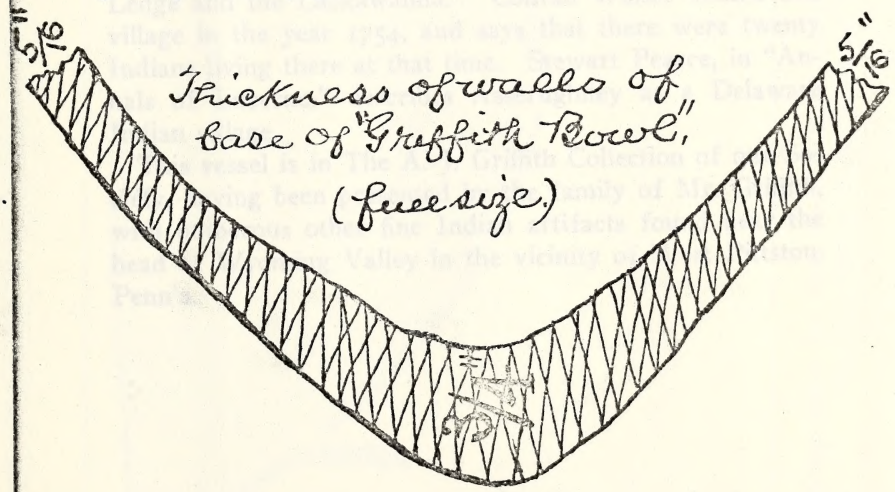


Fig. 2.

A comparison of this vessel with the one shown as Fig. 652, in Vol. II, of Warren K. Moorehead's "Stone Age of North America," shows them to be almost identical in all their features. The beading style of decoration is seen on this vessel, the beading showing on the inside of the rim, while in some instances it is on the outside.

The vessel, which was broken into a number of pieces, was not restored until the year 1913, when Miss M. Louise Baker, who did the work, spoke of it as one of the most difficult pieces she had ever put together.

A small picture is shown of the vessel in a different view, to illustrate that the resemblance to the similar specimen in Moorshead's work, before mentioned, exists in the unsymmetrical shape of the base.

This vessel was found at about the location of the Indian town of Asserughney, which is described as "being on the east bank of the Susquehanna river, between Campbell's Ledge and the Lackawanna." Conrad Weiser visited this village in the year 1754, and says that there were twenty Indians living there at that time. Stewart Pearce, in "Annals of Luzerne," describes Asserughney as a Delaware Indian village.

This vessel is in The A. J. Griffith Collection of our Society, having been presented by the family of Mr. Griffith, with numerous other fine Indian artifacts found near the head of Wyoming Valley in the vicinity of West Pittston, Penn'a.

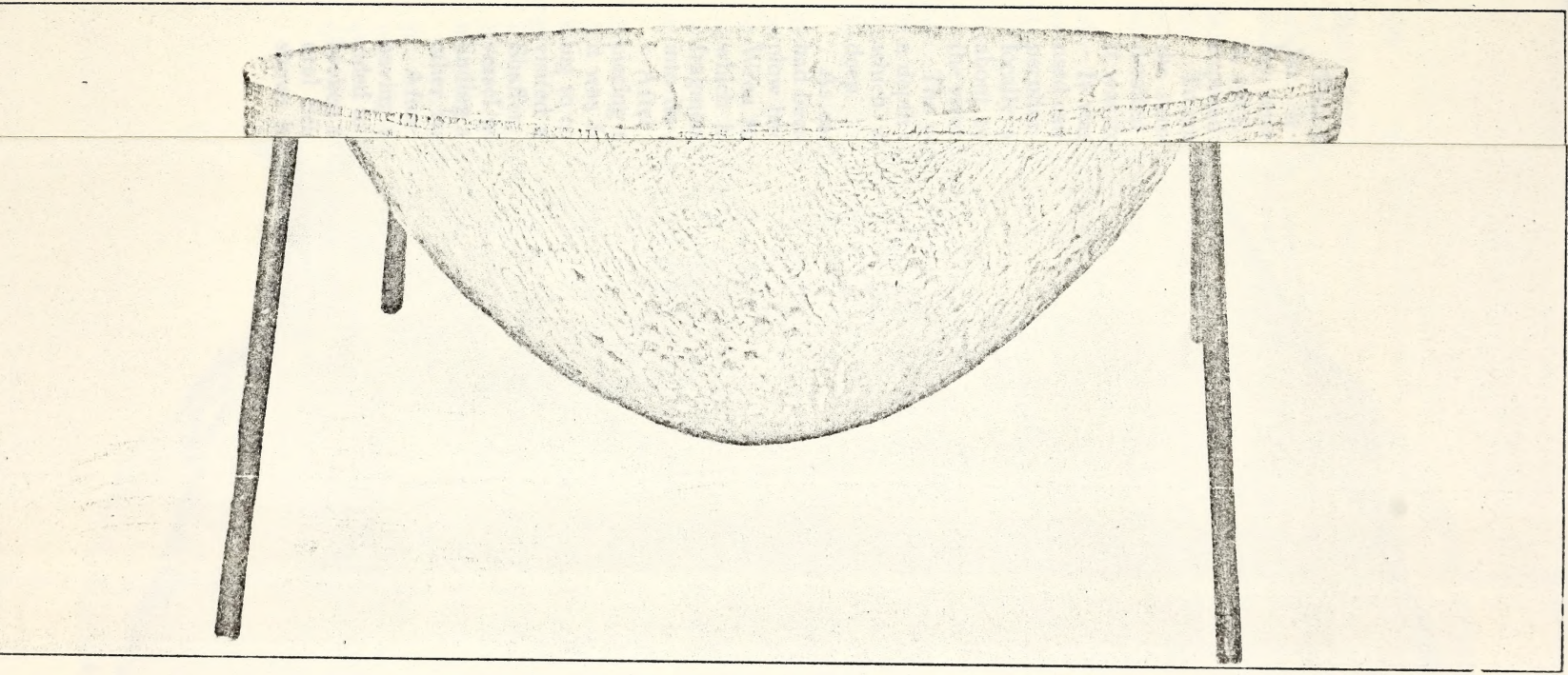


Plate No. 3. The CHRISTOPHER WREN Indian Jar, from Shawnee Flats (capacity 46 quarts; about one-half actual size). In collections of the Wyoming Historical and Geological Society, Wilkes-Barre, Pa.

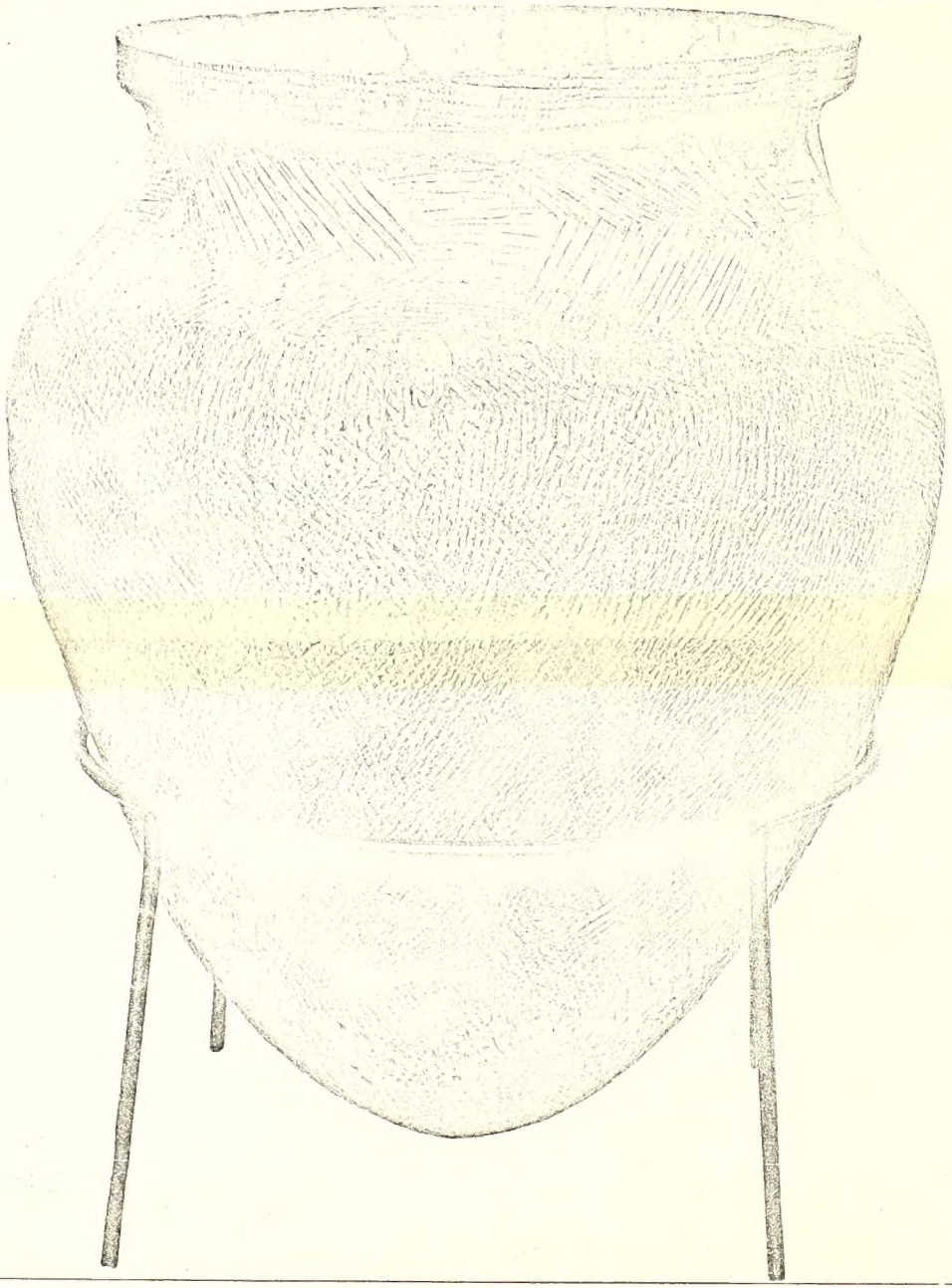
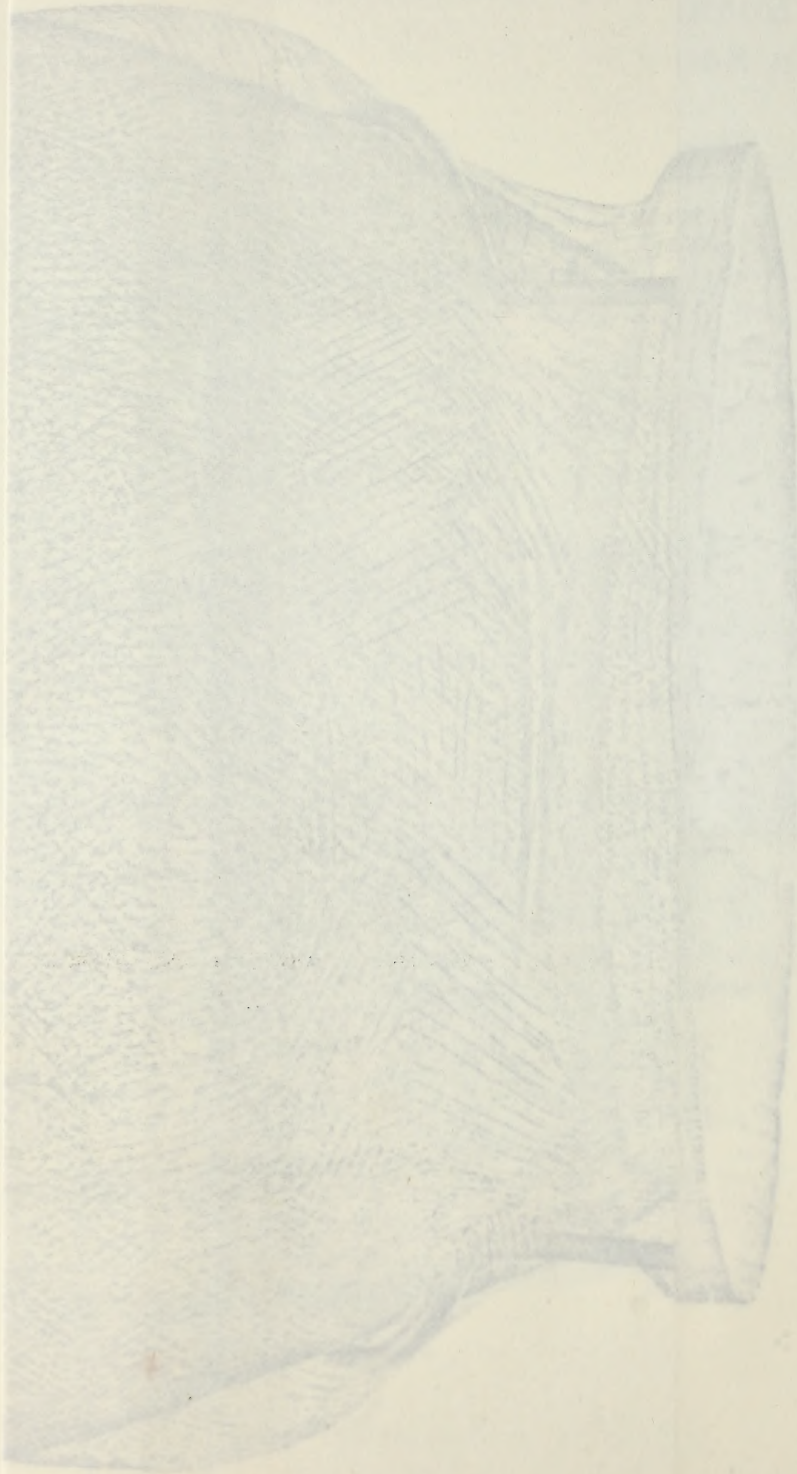


Plate No. 3. The CHRISTOPHER WREN Indian Jar, from Shawnee Flats (capacity 46 quarts; about one-half actual size). In collections of the Wyoming Historical and Geological Society, Wilkes-Barre, Pa.



DESCRIPTION OF PLATE NO. 3.

This Plate shows the "CHRISTOPHER WREN" Indian Clay Jar. It was found on the Shawnee Flats, in Wyoming Valley, near Plymouth, Penn'a, by Christopher Wren, on April 2, 1913, after a freshet in the Susquehanna river, which had exposed it to view.

To connect the location where this vessel was found with the surrounding natural features in the landscape, a more detailed description is given of the conditions under which it was found.

It was on a low knoll, within the boundaries of a much used camp or village site, several hundred feet west of three peculiar ponds sunk in the surface of the valley, and known locally as "The Perch Ponds". These ponds are located about two hundred yards back from the western bank of the river and their length runs parallel with the river.

The vessel was buried with the mouth downward, at such a depth that the base was about one foot below the surface, which would necessitate digging a hole about three feet deep.

As early as the year 1904 so much of the overlying soil had been washed away by the river floods that the farmer's plow had touched the base and broken it. In that year Mr. Wren found a fragment of pottery somewhat down stream, which he preserved. When the vessel was restored this fragment was found to belong to this vessel and was fitted into its place filling up a gap of some size.

After securing what seemed to be the entire vessel, and piecing the rim together, which was not a difficult matter, it was found that about four inches of the rim were missing to complete the entire circumference. The location was visited again on April 3, in company with Mr. Samuel U. Shaffer, of Plymouth, Penn'a, all the soil surrounding the vessel was dug out and passed through a sieve, resulting in finding all but one inch of the missing rim and about a dozen other fragments of the vessel.

After careful consideration as to the best method for having the vessel restored to its original form, it was decided to send the two hundred pieces into which it had been broken to Miss M. Louise Baker, of the Academy of Natural Sciences, at Philadelphia, Penn'a, and the illustration shows how skillfully she has performed that work. Miss

Baker had had much previous experience in restoring some of the unequalled specimens of Indian baked clay ware which Mr. Clarence B. Moore has secured in his explorations of burial mounds in the south.

So much space is given to a description of the finding of this vessel and its restoration, that there may be an authentic record of all these details. It may be said that circumstances somehow seemed to conspire, at this time, to bring about this result.

The illustration shows this vessel so well, that but little attempt is made to further describe it. It is twenty and one-quarter (20¼) inches high, has a diameter of fourteen (14) inches at the mouth and sixteen and three-quarter (16¾) inches at largest part of the body and a capacity of forty-six (46) quarts, liquid measure. The shell is of even thickness and altogether the vessel was strong and serviceable. It is of a light yellow color outside and black inside. The decoration is not elaborate, but has the peculiarity of having a zone which shows decoration near the base, which is very unusual in the region.

The form of the vessel is so much finer in outline and proportion than the decorative features, that it would seem as though the maker had a finer sense for form than for embellishment. A close examination of the lines of decoration on the neck will show, that while they were laid on with boldness and freedom, they are quite crude and seem to have been done carelessly.

It may be remarked that, from the variety of materials found at this place, the Perch Ponds seem to have been a favorite fishing place for the Indians of the south and also those from the eastern part of the State. Much of the gray rhyolite from the Gettysburg quarries, some soapstone from Virginia, red and yellow jasper from the Lehigh and Berks county quarries, and a few pieces of the argillite from the Delaware Valley have been found here.

What is pointed out as the village site of the Shawnee Indians who came into the valley from the vicinity of Delaware Water Gap about the year 1728 is located about a quarter of a mile farther up the river than these ponds. (See description of Shawnee Flats.)

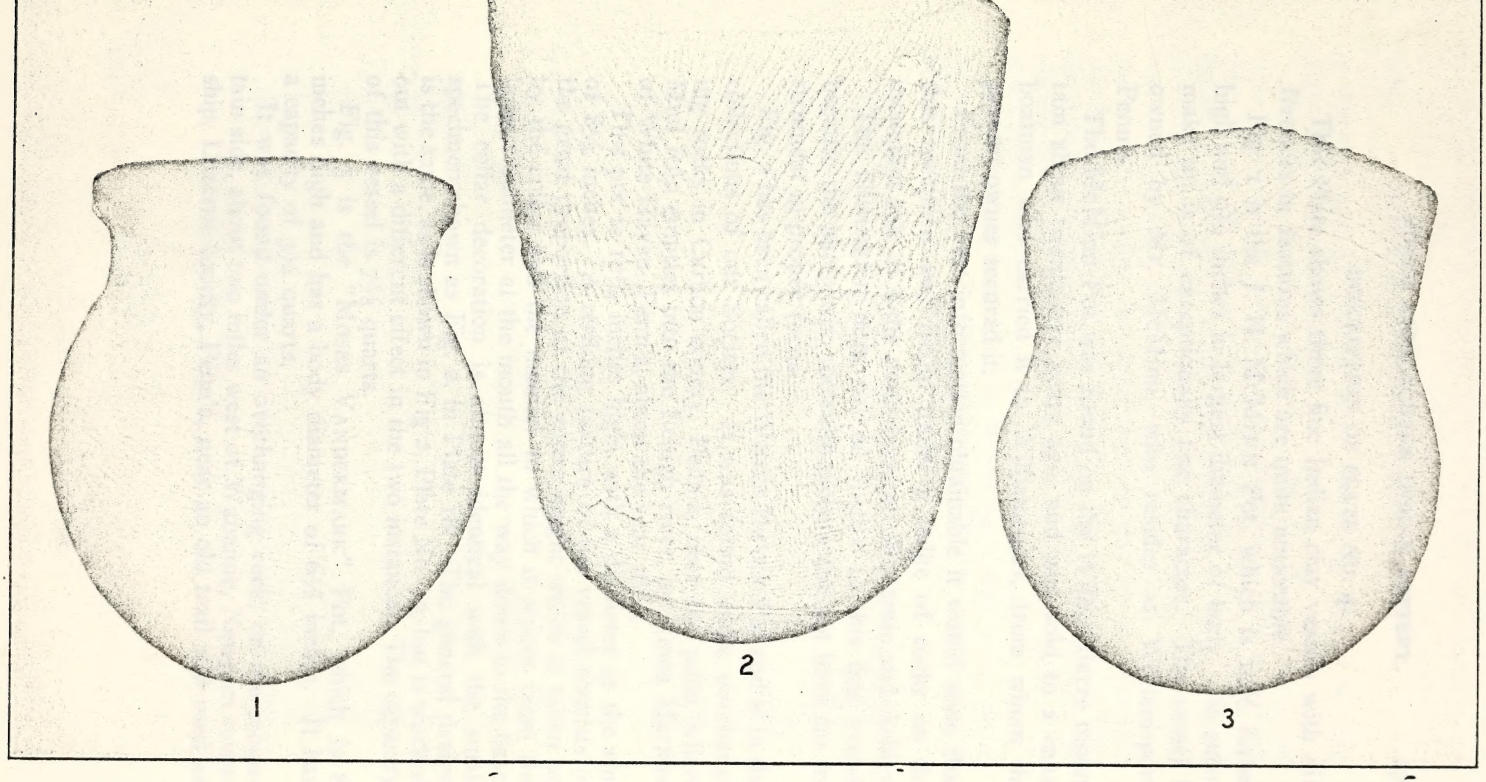


Plate 4. These vessels are, respectively, 10½ inches, 12½ inches and 8 inches high. Fig. 1, owned by J. H. McMinn, Figs. 2 and 3 by Wyoming Historical and Geological Society, Wilkes-Barre, Pa.

Plate 4. These vessels are, respectively, 10½ inches, 13½ inches and 8 inches high. Fig. 1 owned by J. H. McMinn, Esq., 2 and 3 by Wyoming Historical and Geological Society, Wilkesbarre, Pa.

DESCRIPTION OF PLATE NO. 4.

This Plate shows three fine Indian clay vessels with differences in features which are quite noticeable.

Fig. 1 is the J. H. McMINN Pot, which is 10½ inches high and 9½ inches in largest diameter of body. Its entire make up is of exceptionally fine character. The vessel is owned by Mr. McMinn, who resides at Williamsport, Penn'a.

The McMinn Pot was found on the Wilkes-Barre mountain about twenty-five years ago, and was sold to a canal boatman who carried it to Williamsport, from whom the present owner secured it.

From the best information obtainable it would seem that this specimen was found under a ledge of rocks on the mountain side at some point between Wanamie and Ashley.

The illustration does not do justice to this fine vessel, because the party who took the picture did not have his instrument in proper focus.

Fig. 2 has been called the WHITE HAVEN Pot and is in the collections of our Society. It was found under overhanging rocks in Carbon county, Penn'a, near the point where Mud Run empties into the Lehigh river, by Amos Meckas, of White Haven, Penn'a, about the year 1890.

This pot is 12½ inches high, with a diameter at the rim of 8⅛ inches. A striking feature of the vessel consists in the great proportion of the entire height which is taken up by the collar and the manner in which it tapers from the largest diameter at the mouth all the way down to the base. The collar decoration is almost identical with the small specimen shown as Fig. 2, in Plate 18. The general design is the same, as is shown in Fig 2, Plate No. 13, but is worked out with a different effect in the two instances. The capacity of this vessel is 7⅝ quarts.

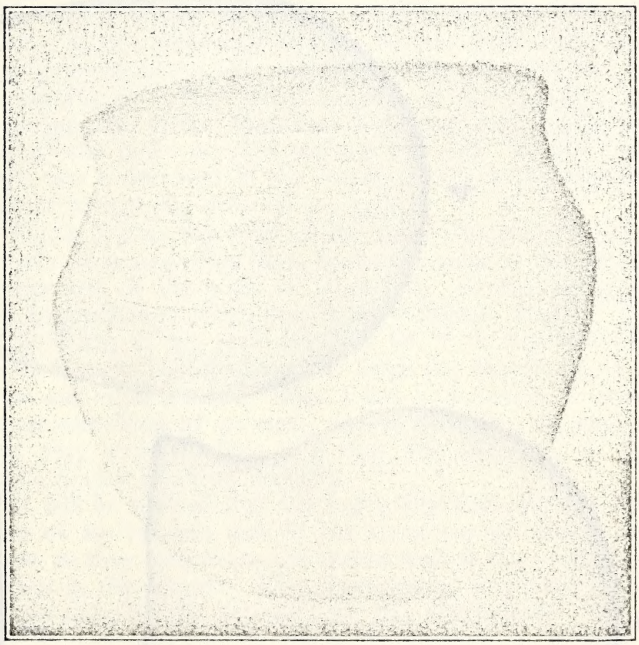
Fig. 3 is the "MOSES VANDERMARK" Pot, which is 8 inches high and has a body diameter of 6½ inches. It has a capacity of 3¾ quarts.

It was found under an overhanging rock, on the mountain side, about two miles west of Wanamie, Newport township, Luzerne county, Penn'a, near an old trail still used as

a traveled path in passing from Wyoming Valley to Lilly Lake in Slocum township.

The writer visited the location with Mr. Vandermark and was interested to notice the surroundings. On a terrace-like flat on the side of the mountain there is a fine spring bubbling out directly on the trail mentioned. The probabilities are that the woman who owned this vessel was passing out of the valley with some companions, and, when they came to the spring, she asked them to rest for a while until she had put the pot in a safe place. She went several hundred yards westward from the spring along the terrace and placed the vessel under the rock where it was found. For some reason she never came back to reclaim it.

As no Indians have lived in Wyoming Valley for a period of more than a hundred years, this specimen must be at least that old and it is probably considerably older.



Early British Pot; about 200 A. D., Oxfordshire, Eng.
T. H. Powell Collection, London, Eng.

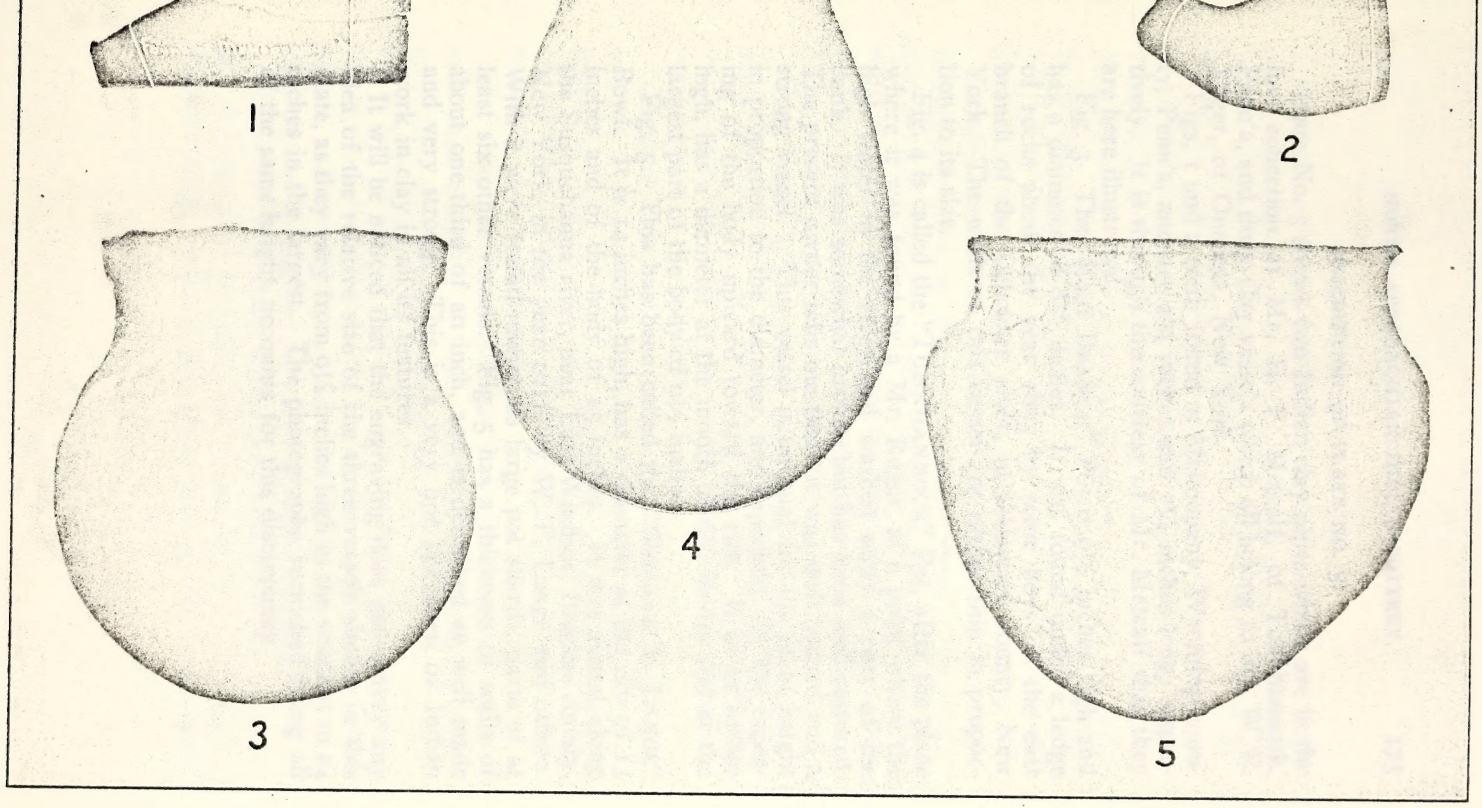


Plate No. 5. Figs. 1 and 2 from Mehoopany, Pa. (Metcalf). Figs. 3 and 4 are, respectively, 9½ inches and 12 inches high. Fig. 5, The Wm. F. Lange Pot, is 14 inches high (Yager).

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DESCRIPTION OF PLATE NO. 5.

Plate No. 5 shows two Indian clay pipes which are in the fine collection of Mr. H. F. Metcalf, of Tunkhannock, Penn'a, and three clay vessels which all belong to Mr. W. E. Yager, of Oneonta, New York.

Figs. 1 and 2 were found at Mehoopany, Wyoming county, Penn'a, and are 2¾ inches and 2¼ inches long, respectively. It is through the courtesy of Mr. Metcalf that they are here illustrated.

Fig. 3 The "EAST BRANCH" Pot is 9½ inches high and has a diameter of 8½ inches. It was found under a ledge of rocks about the year 1895 by some boys on the east branch of the Delaware river, in Delaware county, New York. The walls of this vessel are rather thin in proportion to its size.

Fig. 4 is called the "TUNKHANNOCK" Pot, after the place where it was found by a Mr. Ruger, at a point where the high water in the river had washed away a part of the bank. It was somewhat broken but has been well restored. The present owner tells me that "it was well burned and a strong vessel." This vessel is unusual for the great height in proportion to the diameter, and especially for the tapering of the body upward toward the rim. It is 12 inches high, has a diameter at the mouth of 6½ inches and at the largest part of the body of 9½ inches.

Fig. 5. This has been called the "WILLIAM F. LANGE" Bowl. It is 14 inches high, has a diameter at the rim of 13 inches and of the body of 15 inches. It was found along the Susquehanna river, near East Windsor, Broome county, New York, in the year 1911, by W. F. Lange and others. With it were found numerous large pot sherds, parts of at least six other vessels. Fig. 5 has a thickness of walls of about one-third of an inch, and is described as well made and very strong. This is a very fine specimen of Indian work in clay in all its features.

It will be noticed that the engraving does not convey any idea of the relative size of the three vessels shown in this plate, as they vary from 9½ inches high in the smallest to 14 inches in the largest. The photographs furnished being all of the same height, accounts for this discrepancy.

DESCRIPTION OF PLATE NO. 5.

Plate No. 5 shows two Indian clay pipes which are in the fine collection of Mr. H. F. Metcalf, of Tunkhannock, Penn'a, and three clay vessels which all belong to Mr. W. E. Yager, of Oneonta, New York.

Figs. 1 and 2 were found at Meshoppany, Wyoming county, Penn'a, and are 2¾ inches and 2½ inches long, respectively. It is through the courtesy of Mr. Metcalf that they are here illustrated.

Fig. 3 The "East Branch" Pot is 9½ inches high and has a diameter of 8½ inches. It was found under a ledge of rocks about the year 1895 by some boys on the east branch of the Delaware river, in Delaware county, New York. The walls of this vessel are rather thin in proportion to its size.

Fig. 4 is called the "Tunkhannock" Pot, after the place where it was found by a Mr. Ruger, at a point where the high water in the river had washed away a part of the bank. It was somewhat broken but has been well restored. The present owner tells me that "it was well burned and a strong vessel." This vessel is unusual for the great height in proportion to the diameter, and especially for the tapering of the body upward toward the rim. It is 13 inches high, has a diameter at the mouth of 8½ inches and at the largest part of the body of 9½ inches.

Fig. 5. This has been called the "William F. Lange" Bowl. It is 14 inches high, has a diameter at the rim of 13 inches and of the body of 15 inches. It was found along the Susquehanna river, near East Windsor, Broome county, New York, in the year 1911, by W. F. Lange and others. With it were found numerous large pot sherds, parts of at least six other vessels. Fig. 5 has a thickness of walls of about one-third of an inch, and is described as well made and very strong. This is a very fine specimen of Indian work in clay in all its features.

It will be noticed that the engraving does not convey any idea of the relative size of the three vessels shown in this plate, as they vary from 9½ inches high in the smallest to 14 inches in the largest. The photographs furnished being all of the same height, accounts for this discrepancy.

DESCRIPTION OF PLATE NO. 6.

Plate No. 6 we have called "THE ATHENS FACES". All of the figures shown in this plate were found at Athens, Penn'a, except the small pot, No. 10, which was secured by Mr. R. E. Teed. They are all in the Museum at Athens.

The Athens specimens were found in graves at that place (the Tioga Point of Indian days), about the year 1884, by Mr. Millard P. Murray, on the town lot on which his home is situated. The same ground as is now covered by the town of Athens was formerly occupied by an important Indian village.

Tioga Point, at the junction of the Chemung river with the Susquehanna, in Bradford county, Penn'a, with Shamokin (now Sunbury, Penn'a,) at the confluence of the two main branches of the Susquehanna river, seem to have been the two most important Indian centres, in early times, in Pennsylvania, east of the Alleghany mountains.

Tioga Point is frequently mentioned in early histories, when speaking of the intercourse between the whites and the Indians and between the white settlements in Pennsylvania and those in New York.

The three small vessels shown in this plate are 3¼, 3½ and 2¼ inches high, respectively. Fig. 9 is almost a counterpart of Figs. 85 and 137 illustrated in Dr. Beauchamp's "Earthenware of the New York Aborigines". They are all doubtless of Iroquoian make.

The faces shown in different views in this plate are the very finest examples of Indian modeling of the human face, made by eastern Indians, which the writer has seen. They are in high relief and bring out the forehead, the eyebrows, the eyelids, the high cheek bones, the aquiline nose, the mouth, and the chin in a quite realistic manner. The first eight figures show different views of the same vessel.

The mouth in one case is well proportioned and symmetrical, showing that the artist had the ability to mold a well-shaped mouth, while in the other face, it will be noticed

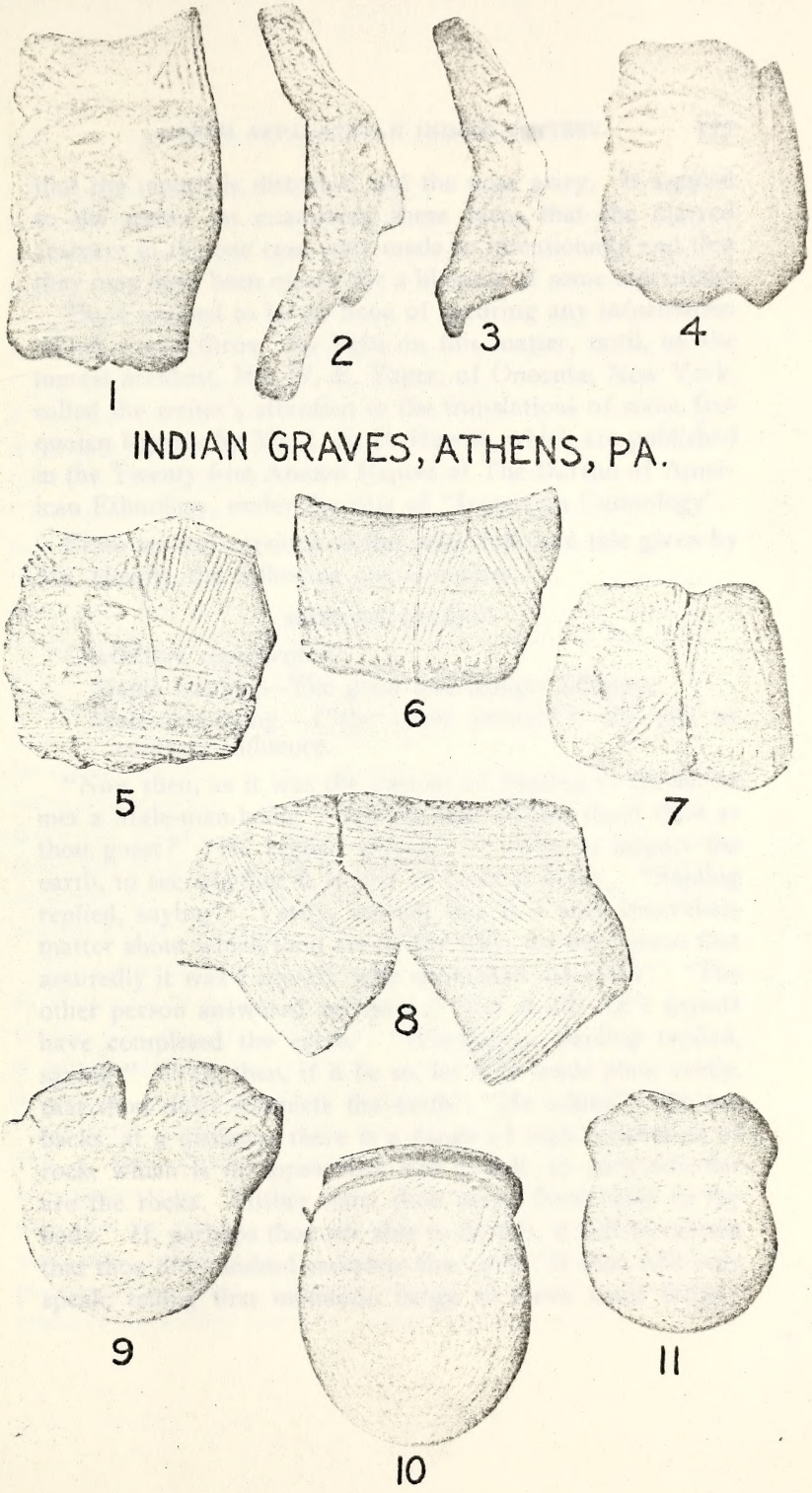


Plate No. 6. ATHENS FACES. Figs. 5 to 8, inclusive, are one-half actual size. Figs. 9, 10 and 11 are, respectively, 3¼ inches, 3½ inches

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INDIAN GRAVES, ATHENS, PA.
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that the mouth is distorted and the nose awry. It seemed to the writer on examining these faces that the marred features in the one case were made so intentionally and that they may have been meant for a likeness of some individual.

There seemed to be no hope of securing any information which would throw any light on this matter, until, by the merest accident, Mr. W. E. Yager, of Oneonta, New York, called the writer's attention to the translations of some Iroquoian legends by Mr. J. N. B. Hewitt, which are published in the Twenty-first Annual Report of The Bureau of American Ethnology, under the title of "Iroquoian Cosmology".

From several versions of the same folk lore tale given by Mr. Hewitt, the following one is copied:

MOHAWK LEGEND.

Characters represented:

Maple Sapling—The good and benign influence.

Male-man-being.—("the other person"), the evil or contrary influence.

"Now then, as it was the custom of Sapling to travel, he met a Male-man-being. Sapling said: 'What doest thou as thou goest?' "He replied saying"; 'I come to inspect the earth, to see whether it is just as I put it forth'. "Sapling replied, saying": 'Verily, indeed, this is a very marvelous matter about which thou art on thy way, for the reason that assuredly it was I myself, who completed the earth'. "The other person answered and said:" 'Not at all, for I myself have completed the earth.' "Whereupon Sapling replied, saying:" 'Well, then, if it be so, let it be made plain verily, that thou didst complete the earth'; "He added": 'At our backs, at a distance, there is a range of high mountains of rock, which is in appearance like a wall, so perpendicular are the rocks. Hither must thou move them close to thy body. If, perhaps thou are able to do this, it will be certain that thou didst indeed complete this earth; if thou wilt only speak, telling that mountain range to move itself hither.'

"Thereupon the other person said:" 'Thus it will, I think, come to pass'. "Then he called out, saying:" 'Come thou, yon mountain range, move thyself hither. Do thou stand beside my body.' "But the mountain range remained there." "Sapling spoke and said": 'There, that is exactly what I have been saying, that thou didst not establish the earth!' "The other person again replied saying:" 'Well then, let it become evident, if it be true, that thou hast established the earth, come then, do thou move that rock mountain hither'. "Sapling replied and said:" 'Thus will I do.' "Thereupon he called out to the range of mountains. He said:" 'Come, move thyself hither.' "Then verily, it moved itself thence, close to his body, at his back did it come to a standstill. The cliff even lightly grazed his shoulder blades." Then Sapling said": 'Now turn thyself around to the opposite side and look where the range of mountains is.' "Whereupon he turned about and the rock struck his nose, and, as to him, his nose became awry". "Then at that time he spoke, saying": 'Truly, indeed, thou has established this earth here present. It was not at all I who did it. If then, thou wilt consent to it that I may live, I will protect at all times thy peoples who are to dwell on this earth'. "Sapling replying, said": 'Truly it shall thus come to pass. Mask shall mankind ever call thee, and Grandfather.'

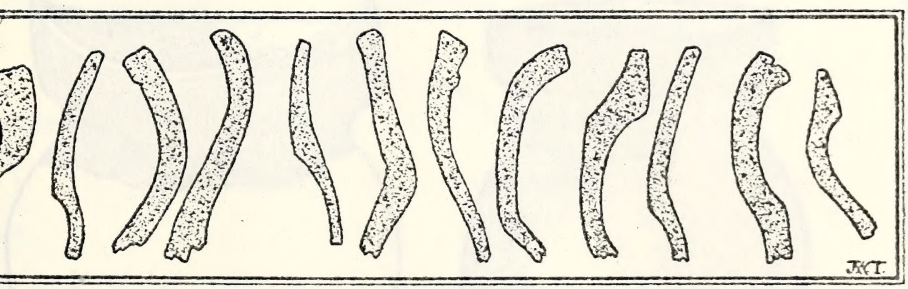
Taking it for granted that the maker of this pot meant to illustrate or typefy the legend copied above, the faces on the rim may be interpreted as follows: Maple Sapling is represented by the pleasant, almost smiling, face shown in Fig. 4, in which all the features are well proportioned. "The other person", (Male-man-being) is represented by Fig. 1, with distorted features and unpleasant expression of countenance. In this case, however, it is not the real face that we see, but it is the Mask which "The other person" was condemned to wear, as a punishment for his presumptious claim of having created the earth. A corroborative indication that it is a mask which is copied, is seen

in the two mere slits which are made to represent the eyes, being apertures through which he could look out.

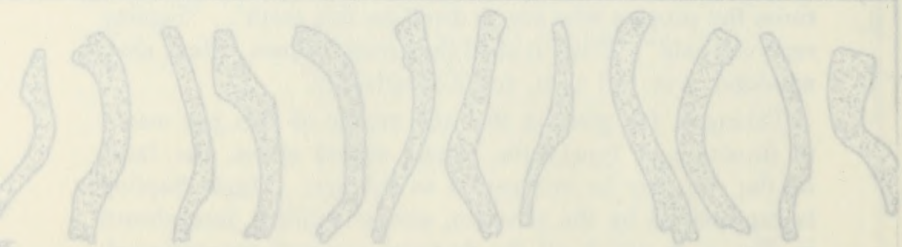
The False Face (or mask) has some connection with several societies among the Iroquois, which are known only to the initiated. Mr. Arthur C. Parker in his monograph on "The Code of Handsome Lake, the Seneca Prophet," says: "There are two Seneca legends setting forth the origin of the False Faces (masks) and with the Mohawks three stories. These stories, however, explain the origin of different classes of masks."

A comparison of the body decoration of the vessel shown as Fig. 8 of this plate, with Figs. 3 and 4 of Plate No. 8, will show that they are of the same character. Both of these vessels were found at the same place on the Murray lot at Athens, and were no doubt made by the same person. They may have been part of a set of similar vessels used for a ceremonial or special purpose. They seem to stand in a class by themselves in the decorative scheme which is carried out on them.

It is through the courtesy of Mr. and Mrs. Murray of Athens, that we are able to illustrate these fine faces.



Sectional view of Pot Rims (reduced) in collections of Wyoming Historical and Geological Society, Wilkes-Barre, Pa.



DESCRIPTION OF PLATE NO. 7

Figs. 1 and 4 resemble each other quite closely in all their features, yet they were found in widely separated localities. They are also like the pots illustrated by Prof. Willoughby, and shown on this page.

Fig. 1, the G. MURRAY REYNOLDS POT, is in the collections of our Society. It is 9½ inches high and has a body diameter of 7½ inches. Its capacity is 4⅜ quarts.

It was found under a ledge of rocks, about the year 1890, on Kitchen's creek, Fairmount township, Luzerne county, Penn'a, and presented to the Society by Col. Reynolds.

The arrangement of parallel lines used in the decoration of this pot rim, and also on a number of other rims illustrated in this paper, is the nearest approach to a uniform style of decoration in use among the peoples of the Susquehanna region. The lines are in a number of cases drawn so nearly parallel that it would seem as though a straight-edge was used in making them. The circumference of the rim must have been divided off in equal spaces to produce the regularity with which the pattern is repeated.

This style of decoration is well suited to the purpose for which it was used; it takes up all the space, leaving no voids, and the finished effect is pleasing and harmonious, and indicates good taste.

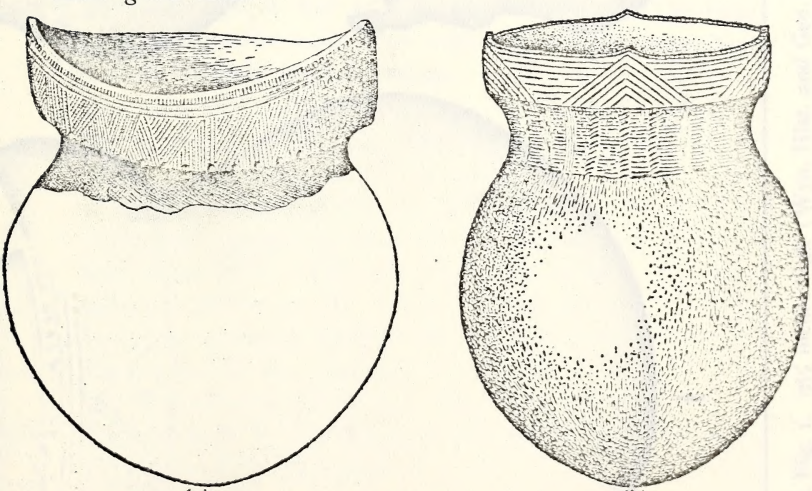
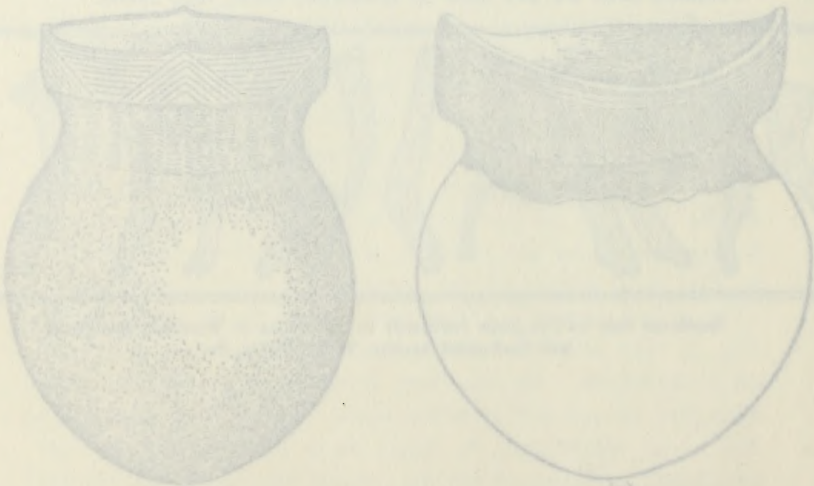


Fig. 3. Two vessels found in Connecticut. (a) near the City of Hartford, and (b) at East Windsor, a few miles north of Hartford; compare (a) with Figs. 1 and 4, Plate 7, and (b) with Fig. 1, Plate 9. (Courtesy of C. C. Willoughby.)



(b) (a)

Fig. 5. Two vessels found in Connecticut, (a) near the City of Hartford, and (b) at East Windsor, a few miles north of Hartford; compare (a) with Figs. 1 and 4, Plate 2, and (b) with Fig. 1, Plate 5. (Courtesy of C. C. Willoughby.)

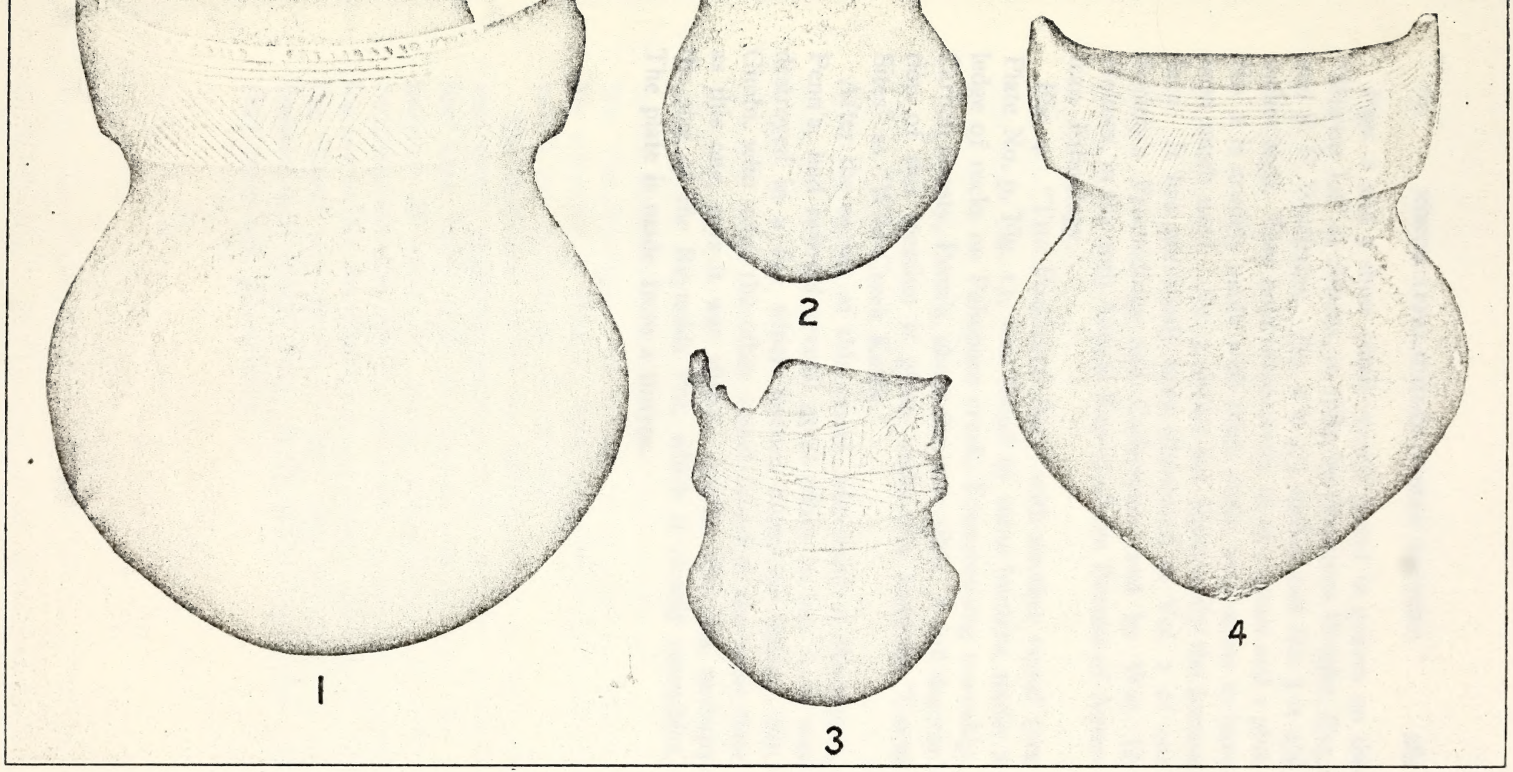


Plate No. 7, Fig. 1. 9½ inches high (Wyo. Hist. and Geo. Society). Figs. 2 and 3 are 4½ inches and 4⅛ inches high, respectively, (Athens Museum). Fig. 4, Pohopoco Por, was about 9 inches high.



Plate No. 7, Fig. 1. 9½ inches high (Wyo. Hist. and Geo. Society). Figs. 2 and 3 are 4½ inches and 4¾ inches high, respectively. (Athens Museum). Fig. 4. Nonnoco Pot, was about 9 inches high.

Figs. 2 and 3 show small vessels found in graves on the "Murray lot" at Athens, in 1883, by Harrison Wright, Esq., and S. F. Wadhams. No. 2 is 4½ inches and No. 3 is 4⅛ inches high. They hold respectively ⅜ of a quart and 1 pint. No. 2 is crudely made with thick walls, and seems to have been much used. No. 3 shows but imperfectly the human face. It has previously been illustrated in Vol. 1 of our Society's Proceedings and Collections, and by Wm. H. Holmes, in the 20th Annual Report of the Bureau of American Ethnology.

Fig. 4. "THE POHOPOCO POT," with another vessel (see Plate No. 9, Fig. 1), was found by some hunters, under a ledge of rocks on Pohopoco creek, Towamensing township, Carbon county, Penn'a, about the year 1886. A full description of this location is given under the heading "Camp Sites" as "Wild Creek Kettle."

After the owner of this vessel, who lived at Weissport, Penn'a, had refused several good offers to buy it, it was destroyed in a fire which burned down his house. Mr. Gimbi, who owns the other vessel found at the same time as this one, says it was slightly smaller than his, perhaps the size of the Reynolds Pot, which it closely resembles, The plate is made from a tintype.

Figs. 2 and 3 show small vessels found in graves on the "Murray lot" at Athens, in 1883, by Harrison Wright, Esq., and S. F. Wadhams. No. 2 is 4½ inches and No. 3 is 4⅛ inches high. They hold respectively ⅝ of a quart and 1 pint. No. 2 is crudely made with thick walls, and seems to have been much used. No. 3 shows but imperfectly the human face. It has previously been illustrated in Vol. 1 of our Society's Proceedings and Collections, and by Wm. H. Holmes, in the 20th Annual Report of the Bureau of American Ethnology.

Fig. 4. "The Porpoco Pot," with another vessel (see Plate No. 9, Fig. 1), was found by some hunters, under a ledge of rocks on Pohopoco creek, Towamensing township, Carbon county, Penn'a, about the year 1880. A full description of this location is given under the heading "Camp Sites" as "Wild Creek Kettle."

After the owner of this vessel, who lived at Weissport, Penn'a, had refused several good offers to buy it, it was destroyed in a fire which burned down his house. Mr. Gimbl, who owns the other vessel found at the same time as this one, says it was slightly smaller than his, perhaps the size of the Reynolds Pot, which it closely resembles. The plate is made from a tintype.

PLATE NO. 8.

Fig. 1 in this plate shows the NORTHUMBERLAND POT. It is 5¼ inches high and 4½ inches in diameter, with a capacity of one (1) quart.

It was found, with another similar vessel, at Sunbury, Penn'a, in a grave about the year 1904, and is now owned by our Society. Except that it is somewhat smaller, it is almost an exact counterpart of the "John Kern" pot, also in our collections, which was found at Shupp's graveyard, Plymouth, Penn'a, about the year 1873, also in a grave. The Kern pot has been illustrated in Vol. 1 of our Proceedings and Collections, and also in the 20th Annual Report of the B. A. E., by Wm. H. Holmes.

To illustrate the difficulty met with in securing one of these rare vessels, the history of this specimen is given in full. After it was found, it was secured by John Chesney of Northumberland. He sold it to Stephen Van Rensselaer about the year 1904, and the writer heard of it indefinitely in 1907 as having been sold to a gentleman at Newark, N. J., some years previously, without any name being given. By pure accident the writer heard of Mr. Van Rensselaer as having a collection of Indian relics, and upon writing to him learned that he was the owner of the pot. In 1913 Mr. Van Rennselaer wrote that he intended to dispose of his collection at Boston, Mass., at auction, and after that sale it was secured by our Society.

The particular reason for keeping track of this vessel, was that it might be returned to the territory in which it had been found (and not become entirely lost), for the purpose of study by expert archeologists. It may be remarked that the Indians told Count Zinzendorf, on pointing out to him the burial place at Shupp's graveyard, where the "Kern" pot was found, that "they did not know what Indians were buried there, as the graves were there when they came into the country."

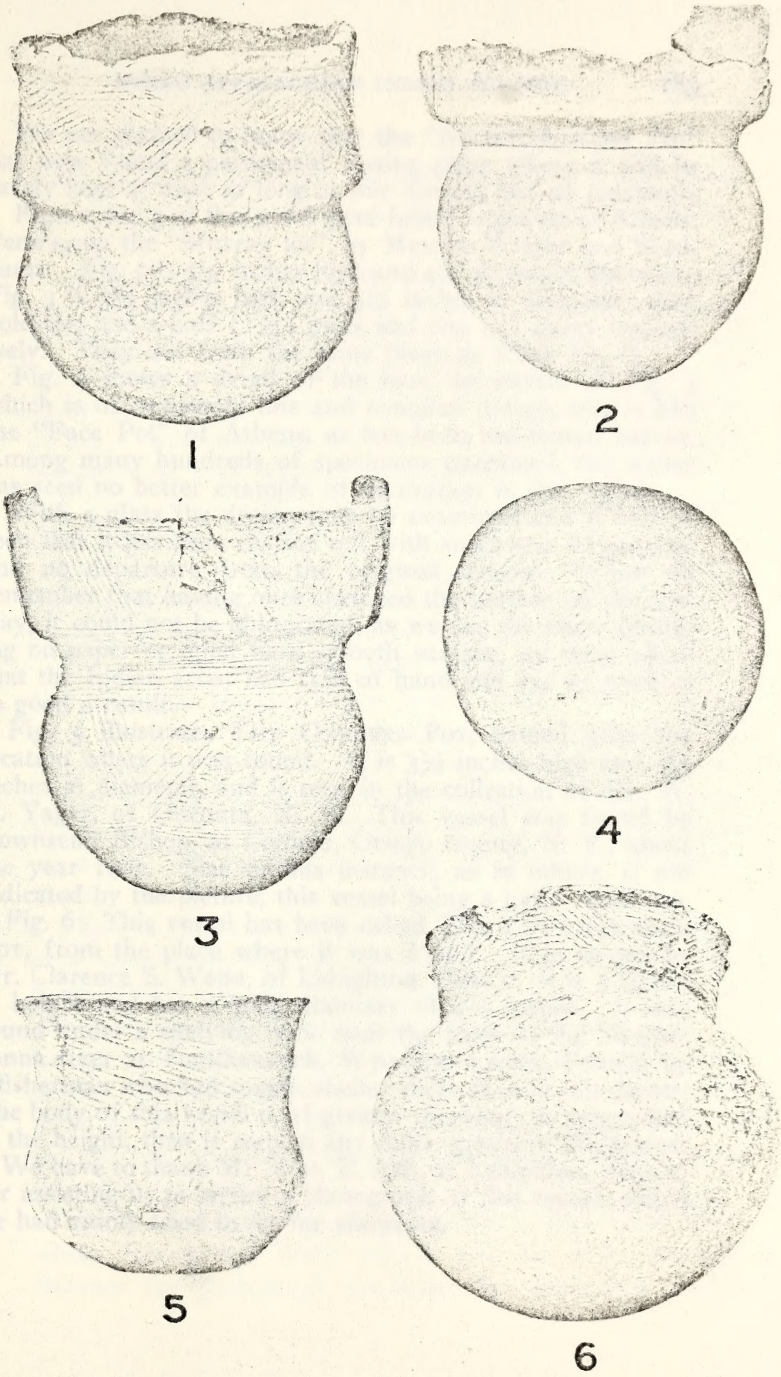
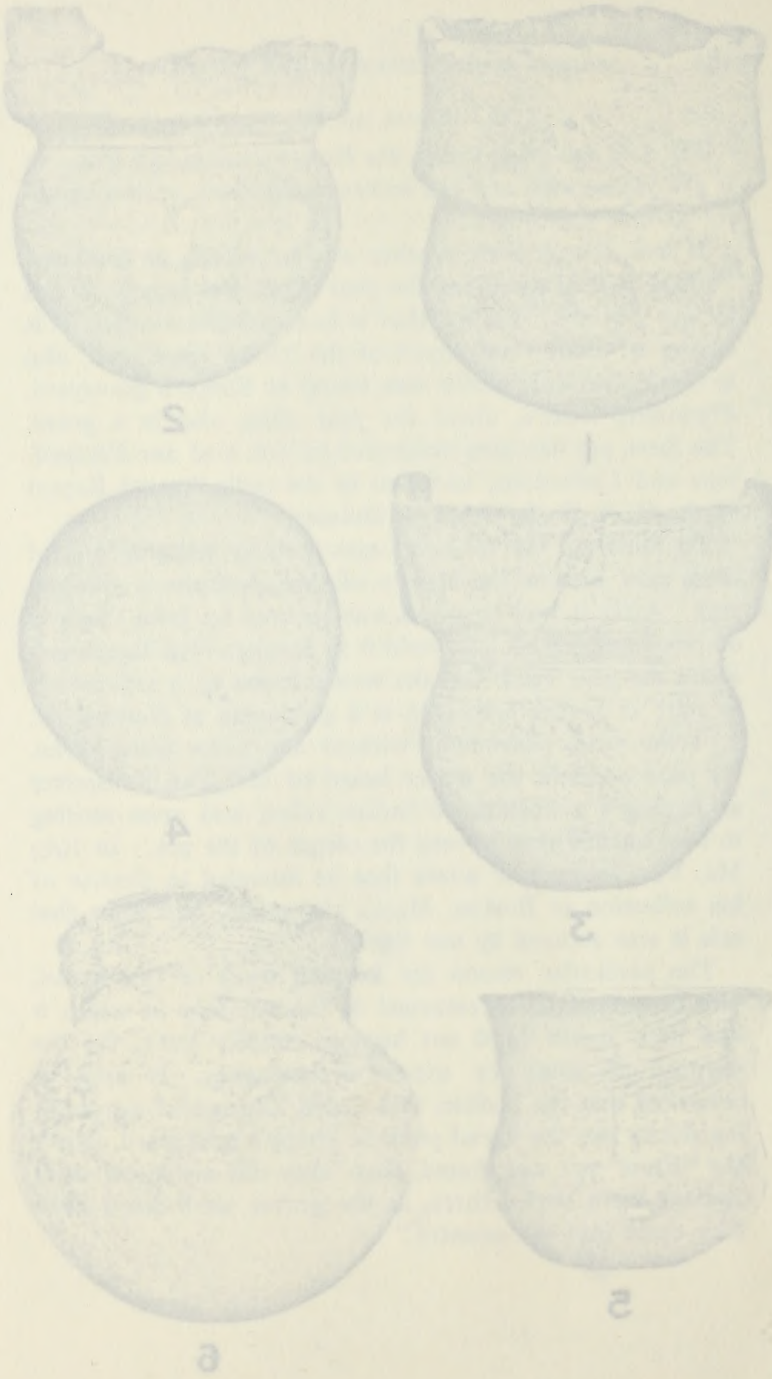


Plate No. 8. Fig. 1. NORTHUMBERLAND POT, is 5¼ inches high. Figs. 2 and 3 are, respectively 5¼ and 5⅝ inches high (Wyo. His. and Geo. Soc.) Fig. 5 is 3½ inches high (Yager). Fig. 6. TUNKHANNOCK POT is 5 inches high (Weiss).


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We are pleased to know that the "Northumberland Pot" has now found a permanent resting place where it will be safely kept at least as long as our Society has an existence.

Figs. 2 and 3 of this plate were found in graves at Athens, Penn'a, on the "Murray lot", by Messrs. Wright and Wadhams. Fig. 2 is 5¼ inches high and 4¼ inches in diameter; Fig. 3 is 5⅝ inches high and 4¼ inches in diameter; they hold one and a half (1½) pints and one (1) quart respectively. They are from the same place as Plate No. 6.

Fig. 4 shows a detail of the base decoration of Fig. 3 which is of unusually fine and complex design, and is like the "Face Pot" of Athens, as has been mentioned before. Among many hundreds of specimens examined, the writer has seen no better example of decoration in the region.

With a glass the design may be examined and it will be seen that it has been carried out with singleness of purpose and no departure from the original scheme. When we remember that having once sketched the pattern on the soft clay, it could not be obliterated, as we can do when sketching on paper or other hard smooth surface, we must admit that the Indian artist had skill of hand and eye to produce so good a result.

Fig. 5 illustrates THE COLLIERS POT, named after the location where it was found. It is 3½ inches high and 3½ inches in diameter, and is now in the collection of Mr. W. E. Yager, of Oneonta, N. Y. This vessel was found by Townsend Bishop, at Colliers, Otsego county, N. Y., about the year 1902. Size in this instance, as in others, is not indicated by the picture, this vessel being a quite small one.

Fig. 6 This vessel has been called THE TUNKHANNOCK POT, from the place where it was found. It is owned by Mr. Clarence S. Weiss, of Lehighton, Penn'a. It is 5 inches in height and has a body diameter of 4⅜ inches. It was found under a shelving rock, near the bank of the Susquehanna river at Tunkhannock, Wyoming county, Penn'a, by a fisherman who had sought shelter there from a rain storm. The body of this vessel is of greater diameter, in proportion to the height, than is seen in any other specimen illustrated.

We have to thank Mr. Wm. E. Ash, of Lehighton, Penn'a, for assisting us to secure a photograph of this vessel, which we had vainly tried to do for six years.

DESCRIPTION OF PLATE NO. 9.

Fig. 1 of this plate is a good illustration of a fine vessel owned by Mr. A. W. Gimbi, of McAdoo, Schuylkill county, Penn'a.

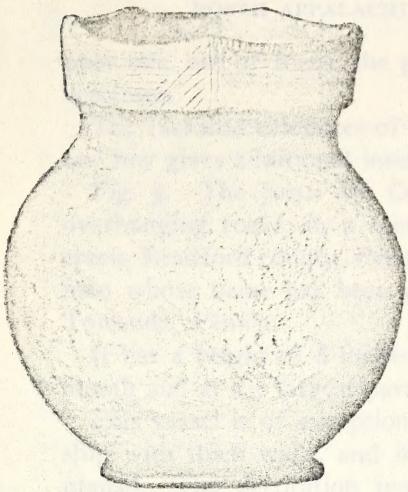
This pot was found at the same time and place as the one described as Fig. 4 under Plate No. 7 and called the Pohopoco pot. A full description is given of the location where these two vessels were found under the head of Camp and Village Sites, in which it is called "Wild Creek Kettle." Both this and the other pot found with it, should be compared with the two illustrated by C. C. Willoughby, and found in adjacent territory in the State of Connecticut. (See page 180.)

The Gimbi pot is 10¾ inches high and has a body diameter of 9½ inches. The engraving shows the features of this pot so well that no further description is necessary.

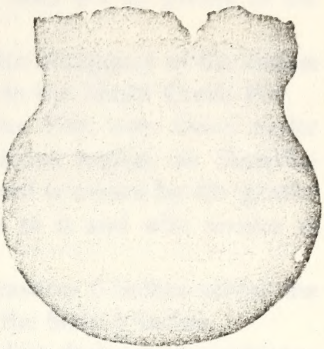
Fig 2. This vessel has been called the HAZLE CREEK POT, from the location where it was found. It is 7 inches high, has a diameter at the mouth of 6 inches and at the widest part of the body of 6½ inches. It was found under a ledge of rocks by George Kimmel, John Wilhelm, Charles Romig and Christopher Wilhelm, at the junction of Hazle creek and Beaver Meadow creek, in Lausanne township, Carbon county, Penn'a.

This location is in a wild and un-inviting mountain region, very poorly adapted for occupancy or cultivation. The probability is that the vessel was hidden under the rocks by some one who was passing over the trail leading from the Lehigh river in the vicinity of Mauch Chunk to some point in the Wyoming valley on the Susquehanna river, which could be done at this place by easy grades and in almost a straight line. Indian hunting parties also doubtless roamed over this territory.

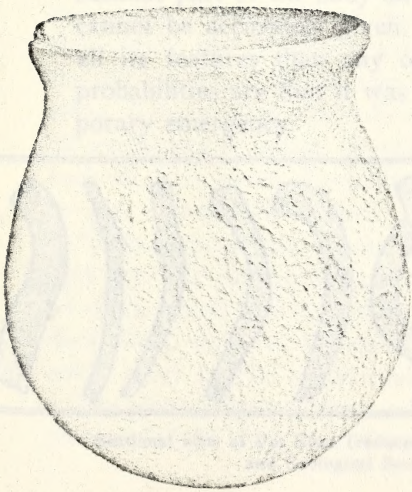
The illustration shows that this was a fine vessel when whole, but it was badly broken and has been restored. Because the photograph furnished for illustration was a



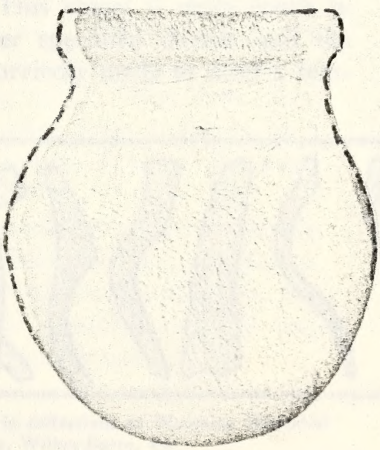
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Plate No. 9 Fig. 1 is 10¾ inches high (Gimbi). Fig. 2 is 7 inches high (Wilhelm). Fig. 3 is 6 inches high (Codding). Fig. 4 is 6½ inches high (McMinn).

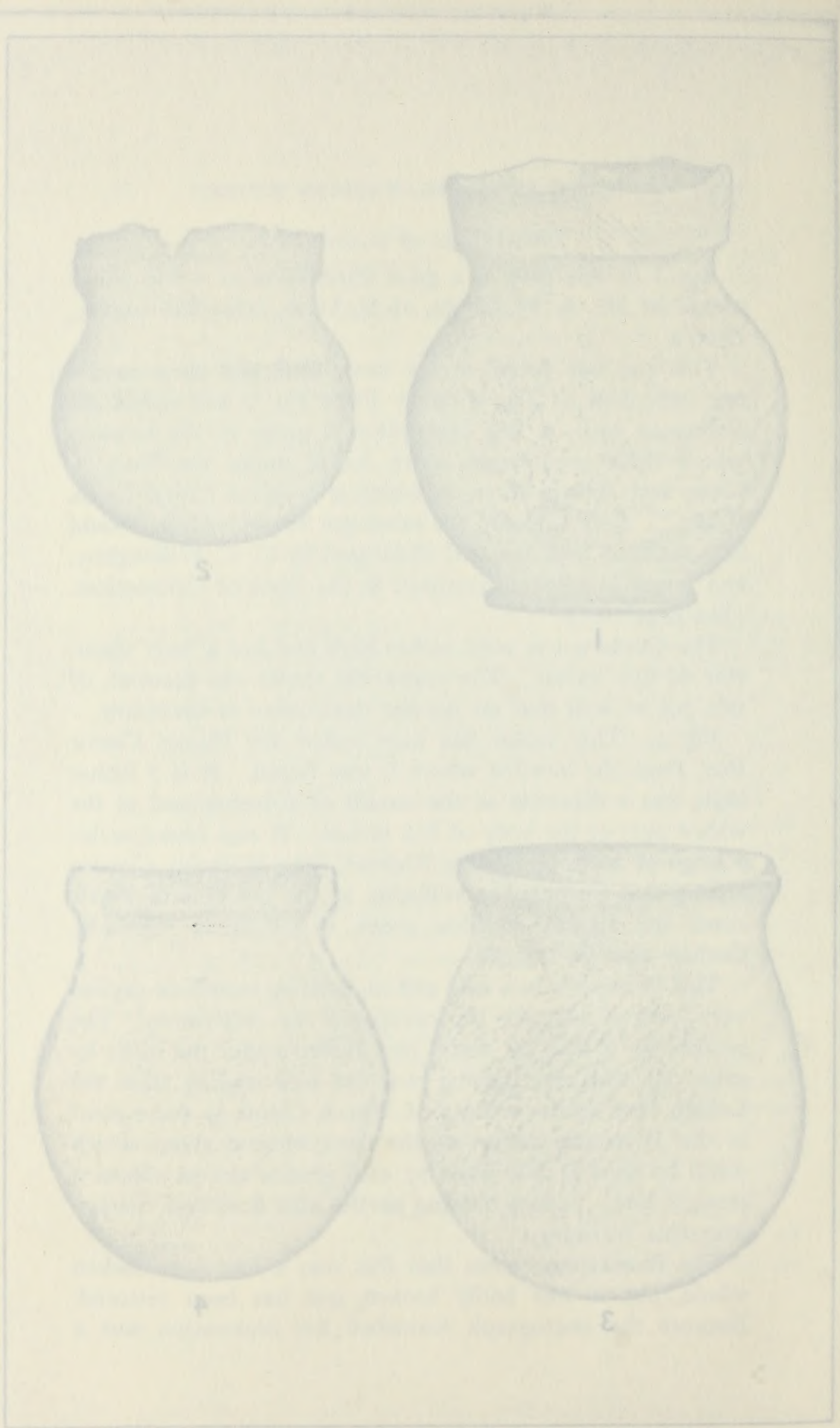


Plate No. 9. Fig. 1 is 10½ inches high (Cimbi). Fig. 2 is 7 inches high (Willelm). Fig. 3 is 6 inches high (Codding). Fig. 4 is 6½ inches high (Mesklum).

poor one, out of focus, the plate does not do justice to the specimen.

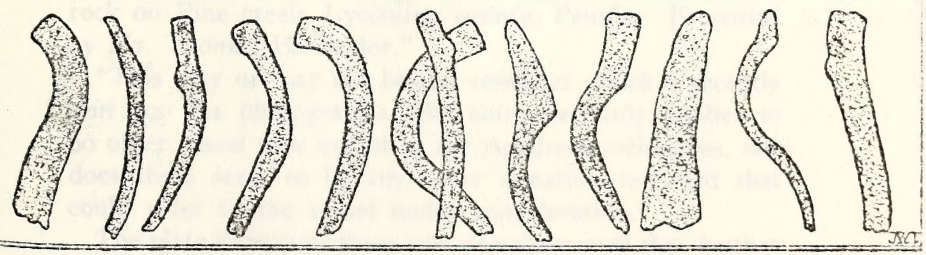
The fact that evidences of Indian occupancy of the region are few gives additional interest to the Hazle Creek Pot.

Fig. 3. The JOHN W. CODDING POT, was found under overhanging rocks, in a mountainous region, on Satterlee creek, Bradford county, Penn'a, and is owned by the gentleman whose name has been given to it and who resides at Towanda, Penn'a.

It has a height of 8 inches, measures 6 inches across the mouth and at the largest part of the body 7 inches.

This vessel is of exceptionally fine design and workmanship with thick walls, and it was a strong and serviceable utensil. The decoration too is well laid on and is in a pleasing style.

Fig. 4. This pot is in the collection of Mr. J. H. McMinn of Williamsport, Penn'a, who also owns Fig. 1 of Plate No. 4. It was found by hunters under a rock shelter on the Scootac mountains, Bald Eagle township, Clinton county, Penn'a. The specimen is 6½ inches high, but, because part of the body and rim are missing, the diameter cannot be accurately given. This vessel is more crude in all its features than any other specimen shown, and the probabilities are that it was hurriedly made to meet a temporary emergency.



Sectional view of Pot Rims (reduced) in collections of Wyoming Historical and Geological Society, Wilkes-Barre, Pa.



DESCRIPTION OF PLATE NO. 10.

Plate No. 10 illustrates two remarkably fine vessels which are in the collections of the Academy of Natural Sciences Philadelphia, Penn'a. It is by the courtesy of Mr. Clarence B. Moore that we are able to include them in this exhibit of the pottery ware of the North Appalachian region.

Fig. 1 is 11.6 inches high, has a diameter at the rim of 10.6 inches and of the body of 9.3 inches. It is a beautiful specimen in all its features, and the confidence and assurance with which it was made indicate that the work was done by skilled and experienced hands.

It was found in the year 1884 at the junction of Big Moshannon creek, with the Susquehanna river, in Clearfield county, Penn'a, together with bones of bear and deer. A wall had been built up in front to conceal it from view. It was presented to the Academy by Dr. H. Beates.

Fig. 2. This figure illustrates a vessel 9 inches high with a greatest diameter of 6½ inches. It seems reasonably certain that this specimen was found on Pine Creek, Lycoming county, Penn'a, about the year 1847. In speaking of this vessel, the Academy writes me: "While going over the old records of the Academy, in search of other information, I came upon the following entry: 'May 11th, 1847, an earthenware Indian utensil, taken from a crevice in a rock on Pine creek, Lycoming county, Penn'a. Presented by Mr. Thomas H. Taylor."

"This may or may not be the vessel of which I recently sent you the photograph. The entry certainly applies to no other vessel now extant in the Academy collections, nor does there seem to be any other donation recorded that could refer to the vessel under consideration."

The plate illustrates these two vessels so well that further comment upon them would be superfluous.

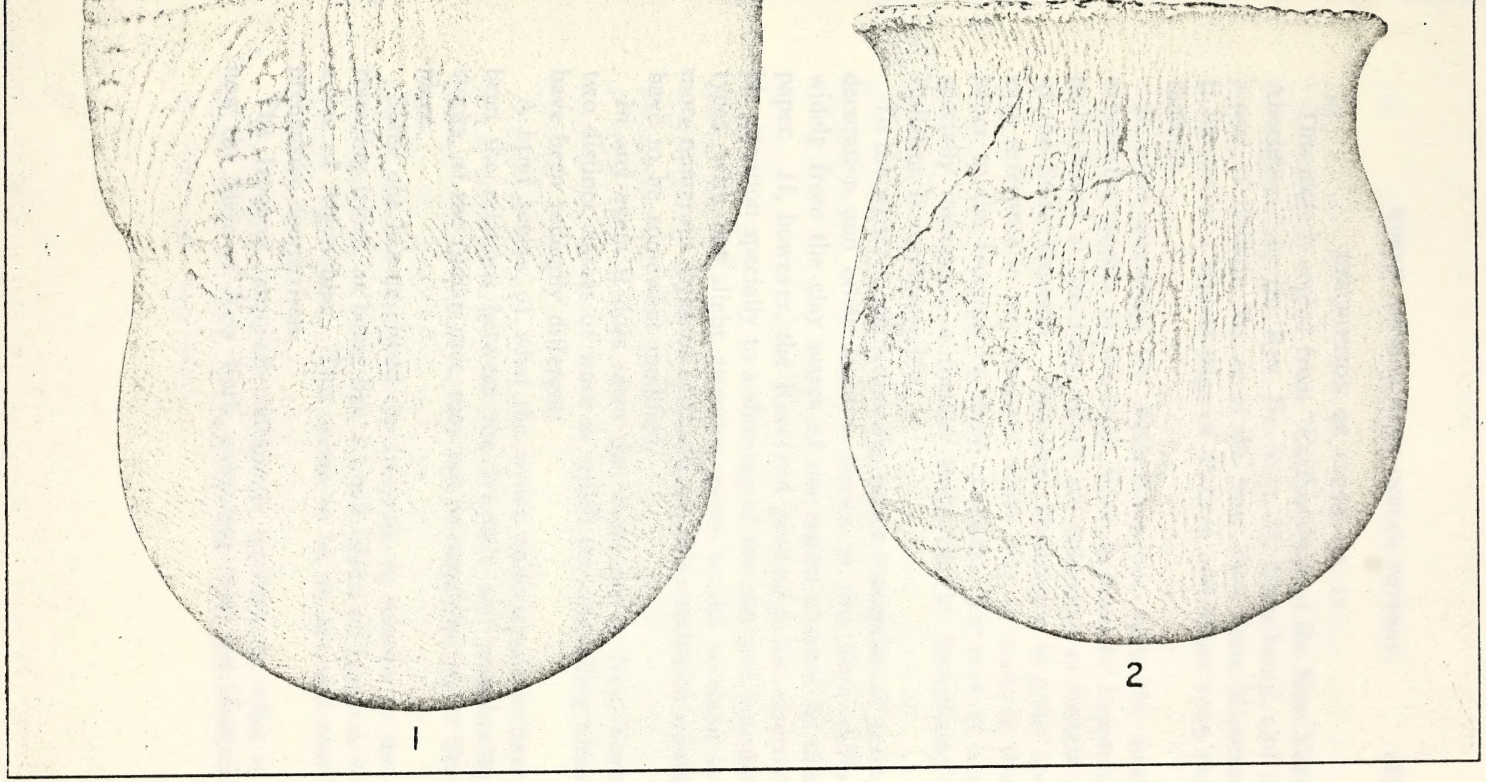


Plate No. 10. Academy of Natural Sciences, Philadelphia, Pa. Figs. 1 and 2 are, respectively, 11-6/10 inches and 9 inches high. (By courtesy of the Society.)

Plate XV. 1a. Acanthocrania semicincta, Philadelphia Dr. Leidy. 1 and 2 are respectively 11-view and 9 view

DESCRIPTION OF PLATE NO. II.

This plate is copied from "Earthenware of the New York Aborigines," by the Rev. Dr. Wm. M. Beauchamp, and is a part of Bulletin No. 22 of the New York State Museum. It illustrates a typical page of Pottery and Pipes from the Bulletin.

In some directions Dr. Beauchamp has made the most exhaustive studies of the New York Indians, or Iroquois, to be found at this time, which are published as Bulletins of the State Museum. This page illustration is given for easy reference in any remarks which may be made in this paper to the Iroquois or their artifacts. To such as are specially interested, a further study of Dr. Beauchamp's Bulletins is recommended.

To the writer it seems that the entire conception of form, decoration and other features shown in this plate, differ widely from the clay wares of the region covered by this paper. If, however, the Reverend gentleman has directed his attention specially to a showing of the rare and unusual types, with but slight attention given to the common or more numerous styles of earthenware, this conclusion would have to be somewhat modified.

In any event it does seem that there are in New York two distinct classes of ware in which the controlling ideas have been radically different.

A brief review of what the writer understands to have been the relations between the Iroquois and neighboring stocks, of the Indian race, may not be inappropriate at this place.

Some one has described the Iroquois, in relation to surrounding tribes, as being like a small island of Iroquois in a sea of Algonquins. This seems to be an apt and comprehensive comparison.

The Iroquois occupied contiguous territory in what is now the State of New York, extending from the Hudson

river on the east nearly to the western boundary, south of Lake Ontario. They were a confederation, all the parties to which had bound themselves to act in unison, in all matters touching their common interests. By thus acting in concert they had attained a place of power and influence which seems to have been very great in proportion to their numbers, when compared with their surrounding neighbors.

They seemed to have learned the first principle in the art of successful warfare, that of presenting at all times a superior force to that of their opponents at the point of contact.

Being much engaged in strife and war with their neighbors, their losses, as has been frequently said by writers on the subject, must have been very heavy. They are said also to have recruited their forces by adopting into the confederacy those of their antagonists whom they had captured in battle. In this way they maintained their war-like strength and influence.

In their forays away from home it is hardly to be presumed that they introduced their handicraft, to any great extent among the peoples with whom they came in contact. Fighting men do not disseminate the peaceful arts practised at home, their business is to fight. Knowledge of peaceful occupations is generally exchanged by friendly intercourse between peoples.

It is fair to presume that, on adopting some of the men whom they had captured in the fight, into the tribes, the women folk of these men went with them, for it is a custom the world over, that the woman will go with her man, when circumstances permit. Conceding the proposition that there are two kinds of pottery ware in the Iroquois country, is it not probable that one of these was brought in by the women of the alien tribes?

Admitting, again, that there are two distinct kinds of ware, which of these is Iroquoian and which the ware of the Algonquin neighbors?

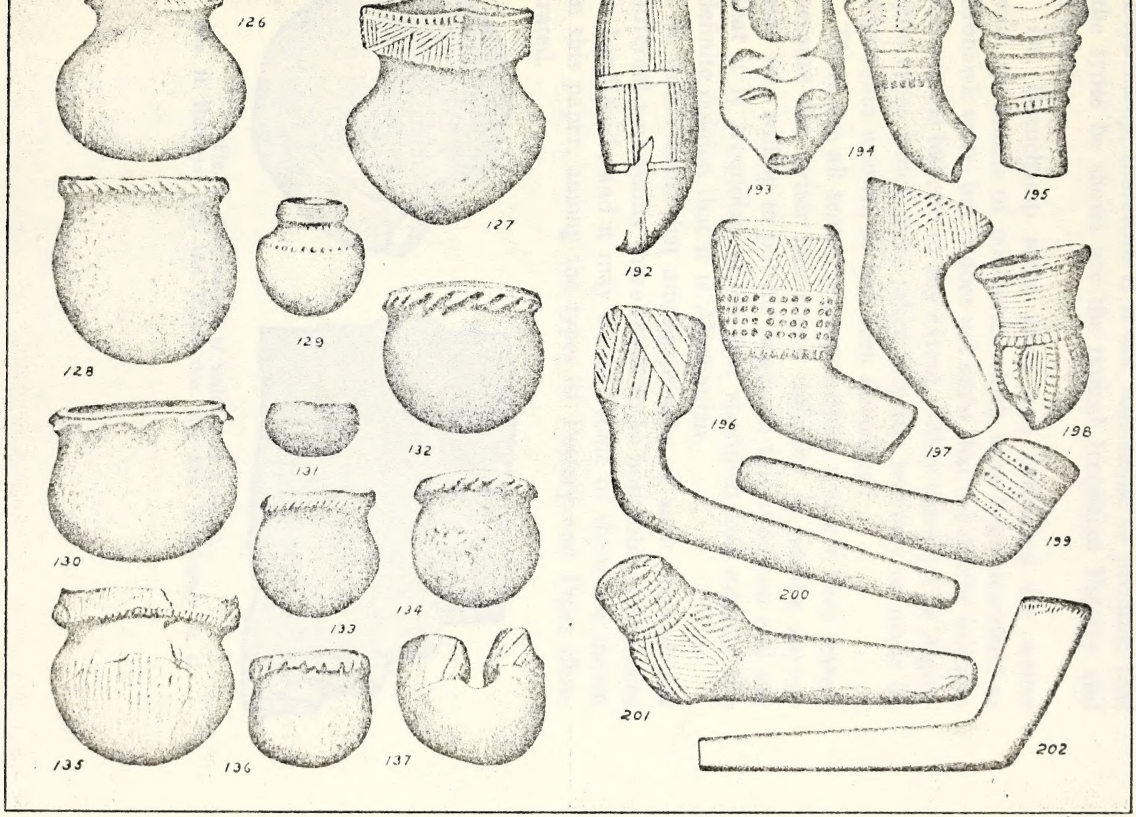


Plate. No. 11. Copies of two plates from "Earthenware of the New York Aborigines," by William. M. Beauchamp, S. T. D., Bul. No. 22, N. Y. State Museum.

Plate XV, 11. Colors by two hands from "Emblemata of the New York Vrouwlust," by William M.

None of the wares outside of the State of New York, seem to resemble that most commonly illustrated by Dr. Beauchamp, therefore is it not reasonable to presume that the types he shows are the typical Iroquoian Pottery and Pipes?

Dr. Beauchamp some years ago furnished the writer with specimens of potsherds which have been described as Mohawk ware, but it does not seem that the doctor includes these in his bulletin to any extent. May these not be Algonquin types which were taken into the territory or made by Algonquin women, as has been described?

These are all tentative propostitions and are here stated, because the writer has found difficulty in finding anyone who was willing to put his finger on this specimen and say that it is Iroquoian or on that specimen and express the definite opinion that it is Algonquian.

It would seem that among peoples of such marked and different personality there ought to be noticeable differences in handiwork, and it may be that some of them are shown in this paper, among the types of Pottery and Pipes illustrated.

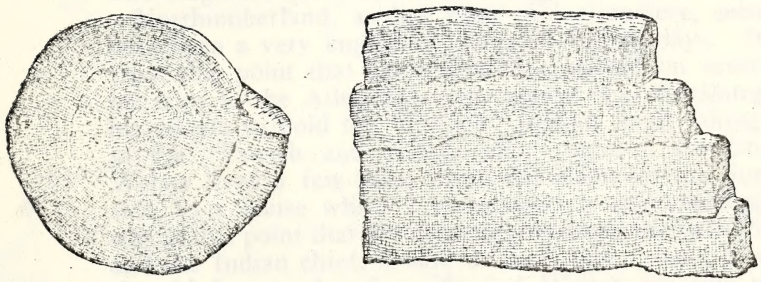


Fig. 5. Coil method of building up a vessel.
Wm. H. Holmes: 20th Ann. Report Bur. Am. Eth., Washington, D. C.

DESCRIPTION OF PLATE NO. 12.

Figs. 1, 2 and 3 in this plate show three clay vessels all of which were found on May 16th, 1891, on Honeyoye creek, Ontario county, N. Y. The height of these pots is 7 inches, 5½ inches and 6½ inches respectively. The smallness of the pictures fails to convey a correct idea of their size, and for this reason measurements are given.

From the general features of all of these specimens and the location in which they were found, they may be safely classified as Iroquoian. They are in the collection of Mr. W. A. Hakes, of Binghamton, N. Y., who kindly furnished the pictures for illustration.

Fig. 4 illustrates a large fragment of an unusually fine pot, found about the year 1910, at Northumberland, by Mr. Frank D. Sholvin, of that place.

A restoration of this vessel from the fragments indicates that it had an approximate diameter at the rim of 13½ inches, was slightly larger at the body and was from 14 to 15 inches high. The shell had quite a uniform thickness of ¼ inch. The decoration, which is very simple, was etched on with a bold and free hand.

Among over five hundred pot rims examined by the writer, from the upper Susquehanna region, there does not seem to be a single other example of this style of rim. The fragment illustrated measures 9 inches at the rim.

Northumberland, as has been said elsewhere, seems to have been a very improtant centre in Indian days. It was from this point that Conrad Weiser started on several of his trips to the Alleghany river region near Pittsburgh, in his efforts to hold the "French" Indians from taking part in the "French and Indian War" against the English. Weiser lived a few miles down the river, on the Sunbury side, in a house which I understand is still standing. It was at this point that the dreaming incident, between Weiser and the Indian chief, is said to have taken place, in which the chief secured a fine rifle and Weiser got title to the isle of Queue, at Selinsgrove, as is described in the Archives of Pennsylvania.

Fig. 5 shows a most remarkable steatite Bowl, which is 20 inches in diameter and 6½ inches high. It was found on Hoke Island in the Susquehanna river, opposite the mouth of Marsh Run, York county, Penn'a. In all its features it is the finest specimen of which the writer has any knowledge. It is now owned by J. E. Vandersloot, Esq., of York, Penn'a.

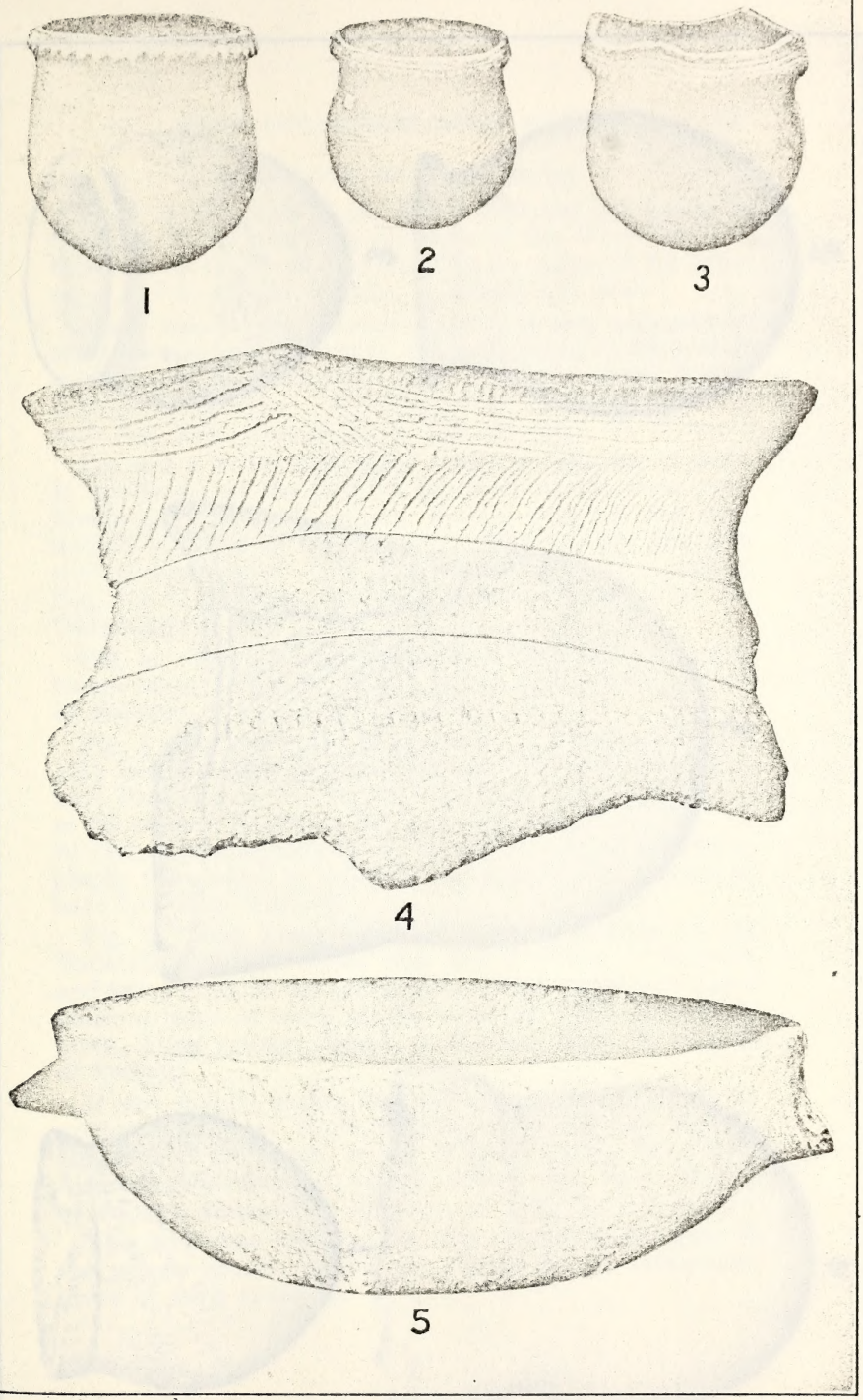
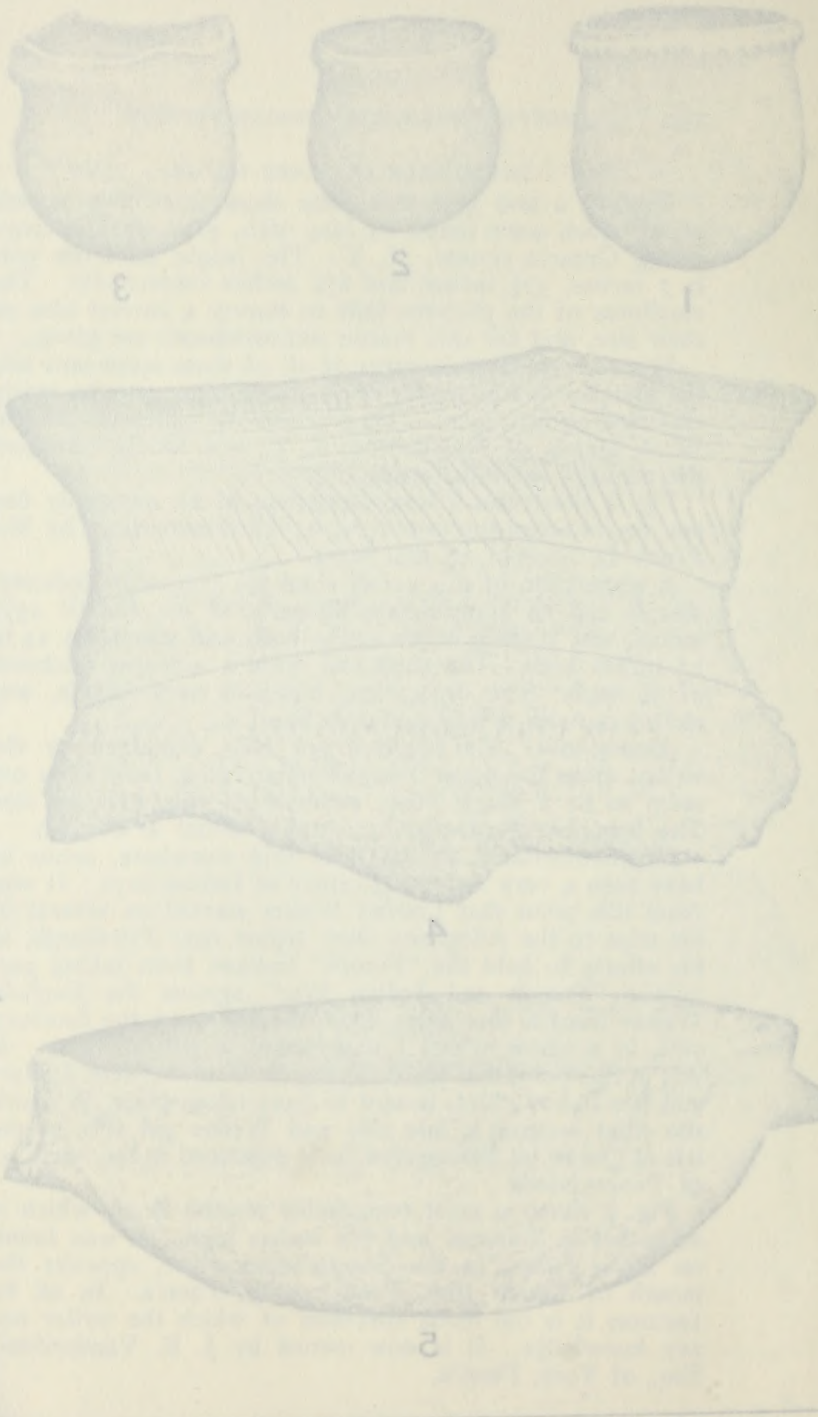


Plate No. 12. First three vessels from Honeyoye Creek, Ontario Co., N. Y. They are 7 inches, 5½ inches and 6½ inches high, respectively (Hakes). Fig. 4. Fragment of a vessel approximately 13½ inches in diameter at the mouth (Wyo. Hist. and Geo. Soc.) Fig. 5 Steatite bowl 20 inches in diameter, 6½ inches deep. York Co., Pa. (Vandersloot.)


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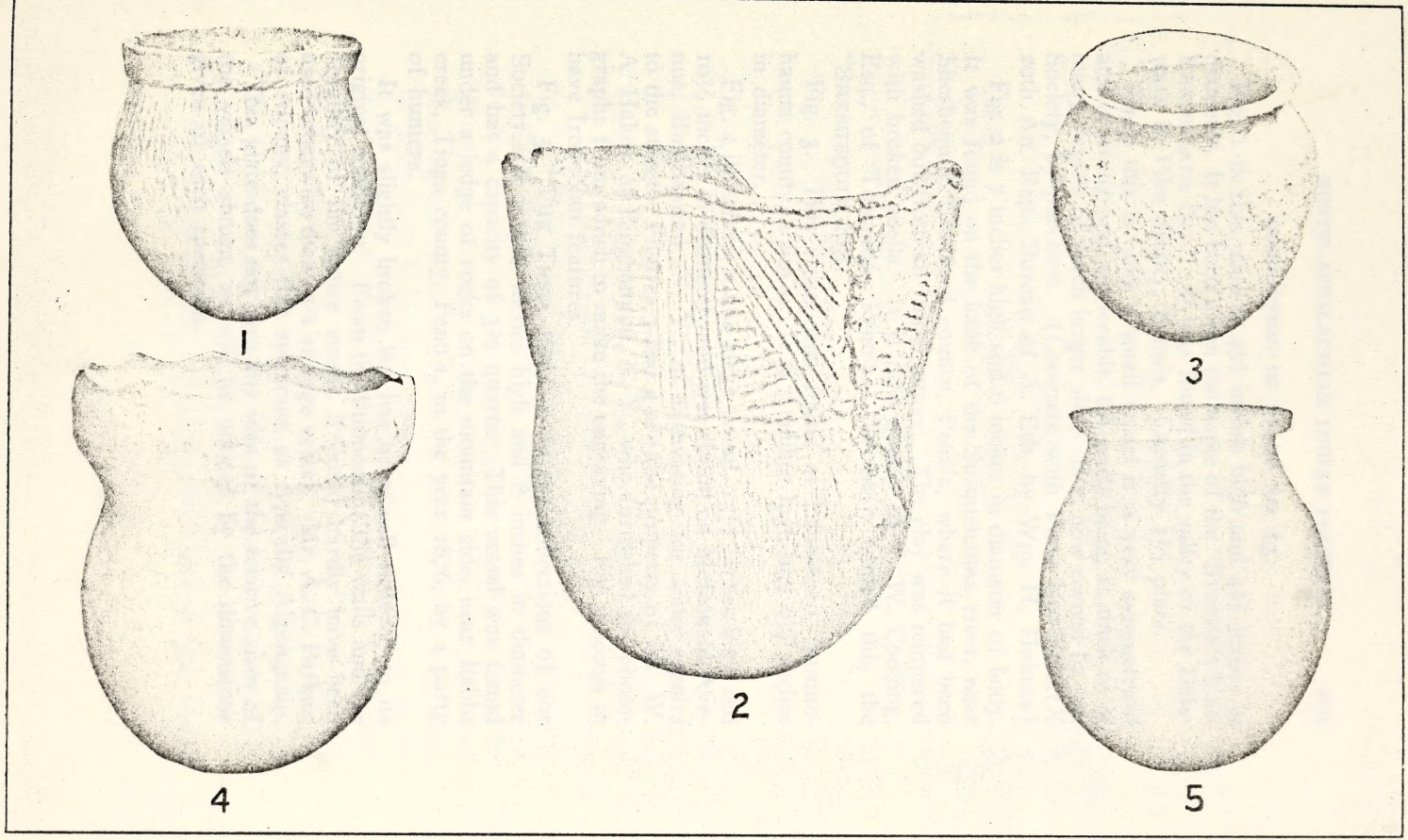


Plate No. 13, Fig. 1. Pike Co., Pa., is 4½ inches high (Wyo. Hist. and Geo. Soc.) Fig. 2. SHESHEQUIN POT is 7 inches high (Codding). Fig. 3. Lanesboro, Pa., is 7 inches high (Hakes). Fig. 4. Binghamton, N. Y., is 13½ inches high (Hakes). Fig. 5. The TIOGA POT is 9¼ inches high (Wyo. Hist. and Geo. Soc.)

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DESCRIPTION OF PLATE NO. 13.

Fig. 1 in this plate is 4½ inches high and 4½ inches in diameter. It has been given the name of the "STEPHEN VAN RENSSELAER POT." It was found in the valley of the Delaware in Pike county, Penn'a. Capacity 1½ pints.

While this is quite a small vessel it is very symmetrical and is strong and serviceable, the walls being as thick as in many vessels of much larger size. It is now owned by our Society, by purchase. (Compare with Plate No. CXXIX 20th An. Rep., Bureau of A. Eth, by Wm. H. Holmes)

Fig. 2 is 7 inches high and 6 inches in diameter of body. It was found on the bank of the Susquehanna river, near Sheshequin, Bradford county, Penn'a, where it had been washed out from an Indian grave. The clay was tempered with broken shells. It is now owned by J. W. Codding, Esq., of Towanda, Penn'a. We have named this the "SHESHEQUIN POT."

Fig. 3. This vessel was found at Lanesboro, Susquehanna county, Penn'a. It is 7 inches high and 6½ inches in diameter.

Fig. 4 illustrates a fine large vessel, 13½ inches high and 10½ inches in diameter, and was found on McDonald Avenue, Binghamton, N. Y., in excavating for some repairs to the street. Figures 3 and 4 are the property of Mr. W. A. Hakes, of Binghamton, N. Y., who furnished the photographs from which to make the engraving. Fig. 4 seems to have Iroquoian features.

Fig. 5, "THE TIOGA POT," is in the collections of our Society. It is 9¼ inches high and 8 inches in diameter and has a capacity of 3¾ quarts. This vessel was found under a ledge of rocks on the mountain side, near Babbs creek, Tioga county, Penn'a, in the year 1876, by a party of hunters.

It was slightly broken but has been well restored to its original condition. From the thinness of the walls and the fragility of the entire vessel, it could hardly have been used otherwise than as a storage vessel. Mr. A. C. Parker, of Albany, classes this specimen as typically Algonquian.

This plate does not give any idea of the relative sizes of the vessels shown, as will be noticed by the dimensions given of each specimen.

INDIAN CLAY PIPES.

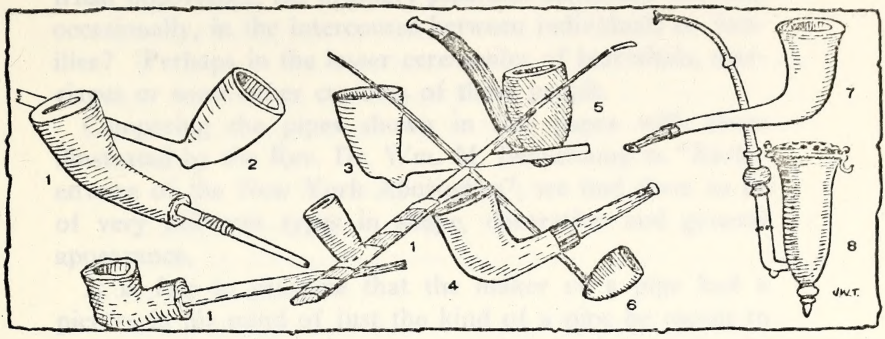


Fig. 6. Various forms of pipes, the angle of the stem to the bowl being a distinctive feature. Nos. 1, 1 and 1 are Indian types, the German pipe, No. 8, showing the greatest variation.

"Old King Cole was a jolly old soul,
O' a jolly old soul was he:
He called for his *Pipe* and he called for his *Bowl,*
And he called for his fiddlers three."

With the authority of this good old English classic, no hesitation is felt in associating Pipes with Bowls and Pots in a paper of this kind. But there is a better reason for such association; many of the Indian pipes were made of the same materials and by substantially the same methods as were used in making the pottery ware. From the rarity of pipes found in the North Appalachian region, it hardly seems that the habit of smoking was a daily or frequent practice, as it is to-day among so many of our people. Had smoking been a common practice, whole pipes or fragments of pipes ought to be more numerous than we find to be the case. Every white man who smokes has at least one pipe, oftener several, and, if the Indian was as well off in this respect there should be one pipe to each smoker. We do not find traces of so many pipes. They were as well made as the pottery and would resist the action of time and the weather as well as the pottery ware.

May it not be that, as smoking the Calumet pipe was a

INDIAN CLAY PIPES.



ceremonial accompaniment of councils and meetings of tribal importance, the ordinary pipe also came into use only occasionally, in the intercourse between individuals or families? Perhaps in the lesser ceremonies of betrothals, marriages or some other customs of these people.

Comparing the pipes shown in this paper with those illustrated by the Rev. Dr. Wm. M. Beauchamp in "Earthenware of the New York Aborigines", we find them to be of very different types in shape, decoration and general appearance.

It is fair to presume that the maker of a pipe had a picture in his mind of just the kind of a pipe he meant to work out, before he commenced work upon it, and that he carried out his design. This was especially true if the pipe was an original design and not a copy of one which he had before him. The Indian does not seem to have been much given to copying. In thus designing a pipe exactly the same mental faculty was exercised as is used by the architect when he designs the most elaborate building.

The pipes of the New York region are so far different from those shown in this paper, that it does not seem as though people of the same habit of thought and artistic taste could have made both of them.

The New York Indians generally expressed themselves in curved lines, circles and life figures and the edges of the pipe bowls and pot rims were generally rounded. In the pipes illustrated here it is seen that the straight line was principally used both in design and decoration and the edges are square and clean cut. Life forms are very rarely seen and when found are probably intrusive.

The New York designs show a reaching out for more complex and elaborate effects, which have not yet been fully worked out in the best forms. The Susquehanna river worker confines himself to more simple lines but rarely shows a departure from a sensible good taste.

All of the pipes of the region of which the writer could secure pictures are illustrated here.

It seems to be true of the clay pipes, as has been said of the pottery of New York, that there are two distinct and widely differing styles found in that territory.

It does not seem to have been a custom to bury pipes with the dead in the Susquehanna valley in Pennsylvania, as but few specimens have been recovered from such sources.

A PSYCHOLOGICAL SPECULATION.

Among all primitive peoples those things which were not palpable to their senses were surrounded by the mysteriousness of the unknown.

In our enlightened day we know that some of the most powerful forces of nature are all around us in a state of balance and apparent rest, so far as we get any impressions of them through our senses. Unless they are thrown out of their normal equilibrium we know that they preform their work silently and without any commotion or visible disturbance. The force of gravity, electricity, the evaporation of moisture into the upper air, by the heat of the sun, and the silent but powerful growth of plant life are a few of these mighty forces.

We have even learned how to disturb some of these forces in a systematic and controllable way, so that we lead them to perform useful services for us.

Uncultured man had some indistinct and misty perceptions of the existence of these invisible forces, to which he ascribed qualities which they do not possess and he also had false ideas of the causes for their actions when disturbed, the effects of which he could see.

On the border line between the material things which have body, weight and solidity and the intangible things, primitive man saw the fogs and mists produced by nature in a manner incomprehensible to him; he, himself, could produce smoke, at his pleasure, when he had learned to make fire, but he had no definite ideas of the real character of this smoke, so it still lay within the bounds of the mysterious and strange.

In our English language there seems to be some relationship between the words *mysterious* and *mist,* both of which express the idea of that which is hazy, uncertain or not clearly seen. All through the history of our race we find records and mention of secret or hidden ceremonies in which smoke or mist have a prominent place.

It seems to have been the belief of primitive peoples that the all powerful or good influence was located in the upper atmosphere above the earth, and they may have inferred that smoke, which rises in the air and imperceptibly fades away, was in some way a means of closer communion with this good, or at least powerful influence.

The American Indian, as a preliminary to all important or ceremonial meetings passed the Calumet Pipe around the circle, from hand to hand, and each participant was expected to draw a few mouthfuls of smoke from it and exhaust it into the air. This practice of smoking did not at all consist of each man consuming the tobacco in a pipe bowl or cigar, as we do in some of our social gatherings, but partook altogether of a ceremonial observance. Could they have held the belief that the smoke from the Calumet brought them into closer relations with the good influence whose presence they desired to have with them in their deliberations?

The fact that we have no definite information from the Indian himself, as to the exact office which the smoking of the Calumet filled in their ceremonies does not seem to have any negative weight in a discussion of the question.

We feel quite as great a reluctance, as the Indian may have felt, in exposing or explaining our most secret and sacred thoughts and feelings to strangers or those who are not friends. Such things are not to be lightly spoken of and especially not to satisfy mere idle curiosity or prying inquisitiveness, even though the object may be for an academic understanding of the thing inquired about.

It is not intended here to discuss this matter at length, but merely to suggest that the use of the smoking pipe may at all times have had something of a ceremonial meaning attached to it among the American Indians, of the North Appalachian region.

DESCRIPTION OF PLATE NO. 14.

All of the pipes shown in this and Plate No. 15 were found in the region under consideration, and are composed substantially of the same materials and were made by the same processes as the clay pottery. It is generally understood that the pottery was made by the women, while the men made the pipes.

Nos. 2-3-4-10-12-13 and 14 are the property of Dr. T. B. Stewart, of Lock Haven, Penn'a, and were found in that locality, which is about seventy miles up the west branch of the Susquheanna river from Northumberland, Penn'a.

Nos. 1-6 and 11, also owned by Dr. Stewart, were found in Lancaster county, Penn'a, about 75 miles down the Susquehanna river from Northumberland.

No. 7 is in the Griffith collection of our society, and was found above West Pittston, near the end of the Coxton bridge of the Lehigh Valley railroad a number of years ago.

Nos. 8 and 9 are in the Christopher Wren collection of our Society and were found in Wyoming Valley, which is about sixty-five miles up the river from Northumberland. No. 9 seems to have had some figure, perhaps a face, luted on the front of the bowl, which has become detached from it.

No. 5 was found at Northumberland by Mr. Frank D. Sholvin, of that place, and is also in the Wren collection.

There seems to be but slight resemblance between these pipes and those which Dr. Beauchamp classes as Iroquoian, in the plate copied from Bulletin 22. No further comment is made on this plate, as the engraving shows details better than they can be described.

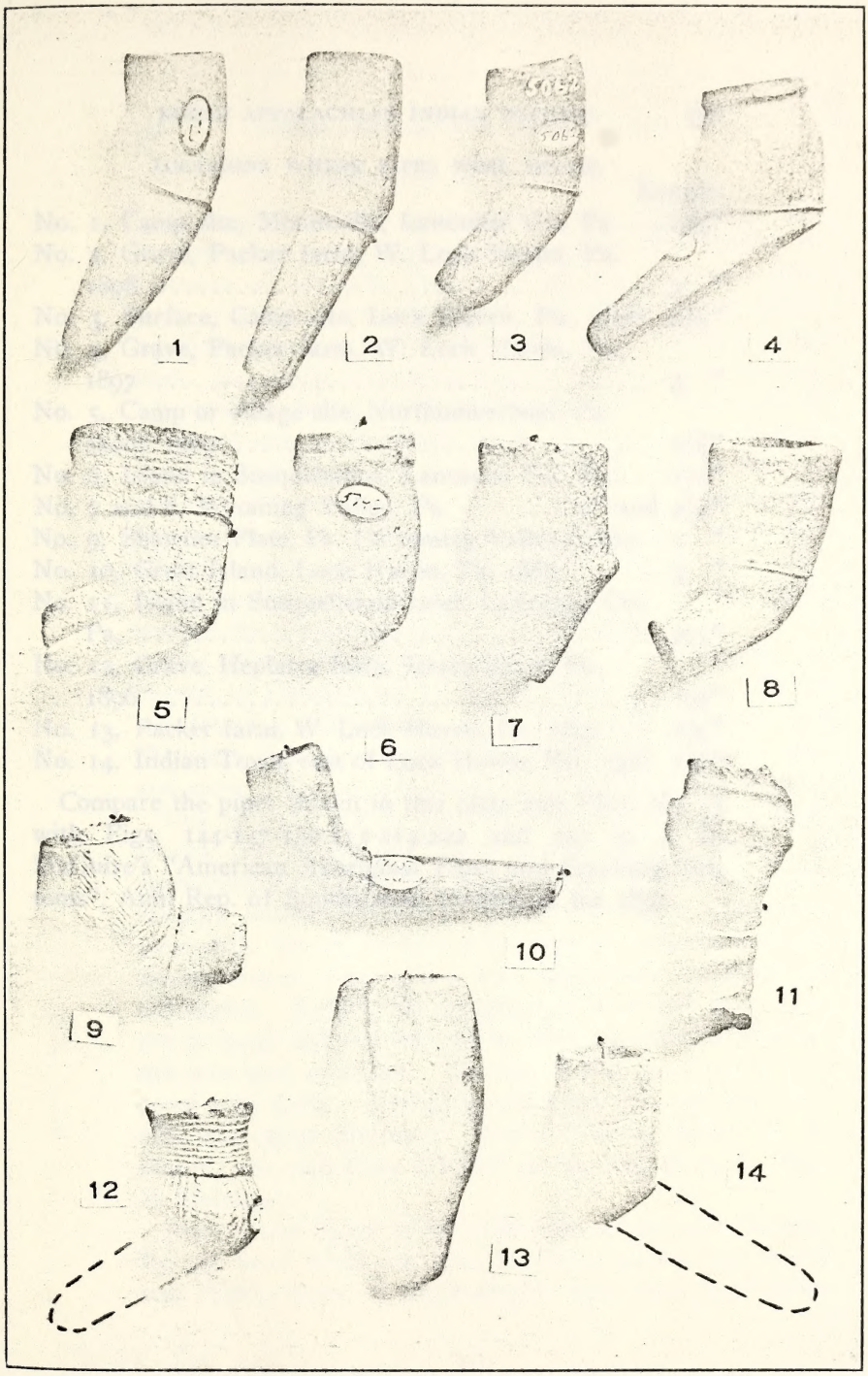


Plate No. 14. Indian Clay Pipes from Lancaster, Northumberland, Clinton and Luzerne Counties, Pa. (Stewart and Wyo. Hist. and Geo. Soc.)

Plate No. 14. Indian Clay Pipes from Lancaster, Northumberland, Clinton and Lycoming Counties, Pa. (Stewart and Wyo. Hist. and Geo. Soc.)

LOCATIONS WHERE PIPES WERE FOUND.

Length.

No. 1, Camp site, Mountville, Lancaster Co., Pa.....2⅝″
No. 2, Grave, Packer farm, W. Lock Haven, Pa. 1898 .....3 ″
No. 3, Surface, Camp site, Lock Haven, Pa., 1898..2¼″
No. 4, Grave, Packer farm, W. Lock Haven, Pa. 1897 ..... 3 ″
No. 5, Camp or village site, Northumberland, Pa. about 1909 ..... 2¼″
No. 6, Island in Susquehanna, Lancaster Co., Pa.....1¾″
No. 7 and 8, Wyoming Valley, Pa. ..... 2″ and 2¼″
No. 9, Shawnee Flats, Pa. (Wyoming Valley) 1902.. 2 ″
No. 10, Great Island, Lock Haven, Pa. 1889 ..... 3 ″
No. 11, Island in Susquehanna river, Lancaster Co., Pa. ..... 2½″
No. 12, Grave, Hepburn farm, Jersey Shore, Pa. 1896 ..... 1⅜″
No. 13, Packer farm, W. Lock Haven, Pa., 1897 .... 2¾″
No. 14, Indian Town, east of Lock Haven, Pa., 1906. 1½″

Compare the pipes shown in this plate and Plate No. 15 with Figs. 144-147-150-213-214-222 and 227 in J. D. McGuire's "American Aboriginal Pipes and Smoking Customs", Ann. Rep. of Smithsonian Institution for 1897.

DESCRIPTION OF PLATE NO. 15.

All the pipes on this plate are from the region under discussion. Nos. 15-21 and 24 are owned by Mr. Charles M. Johnston, of Danville, Penn'a. They are all of one type, made of a light colored clay, and seem to be unique, differing from all other Indian clay pipes which the writer has seen. In general appearance they seem to be fat or chubby, I know of no better words to describe them. The walls of the bowls are exceptionally thick, varying in that feature from ¼ inch in No. 21 to ⅜ inch and ⅞ inch in Nos. 15 and 24. The stem holes in Nos. 15 and 24 are large enough for the use of an auxiliary stem of bone or quill, while No. 21 will barely admit a darning needle. These seem relatively smaller than the other pipes shown in this plate, because the photograph is on a smaller scale.

Nos. 16-22 and 25 are the property of Mr. Dudley A. Martin, of Duboistown, Lycoming county, Penn'a. No. 16 was found at Duboistown. No. 22 is made of stone, and illustrates that the same shaped pipes were made in clay and stone. No. 25 was found near Williamsport, Penn'a.

Nos. 18-20-26 and 27 are owned by Dr. Stewart, of Lock Haven, Penn'a, and are located in the list given below. A comparison of No. 26 with Figs. 198 and 201 of Dr. Beauchamp's Bulletin 22, shows them to resemble each other somewhat. No. 27, located by Dr. Stewart as being found in Beaver county, Penn'a, is a very remarkable specimen for this region. Both of the openings, of bowl and stem ends, are so large and bell like, as to cause speculation whether this was used as a pipe. The clay in this specimen is tempered with shells. (Compare with pages 173 and 186 "Certain Aboriginal Remains," Black Warrior River, C. B. Moore; also with Plate XXXIII 20 An. Rep. B. A. E., Wm. H. Holmes.)

Nos. 17 and 19 are in the collections of our own Society; No. 17, from which the stem has been broken, was found near Wilkes-Barre. It is embellished with three good copies

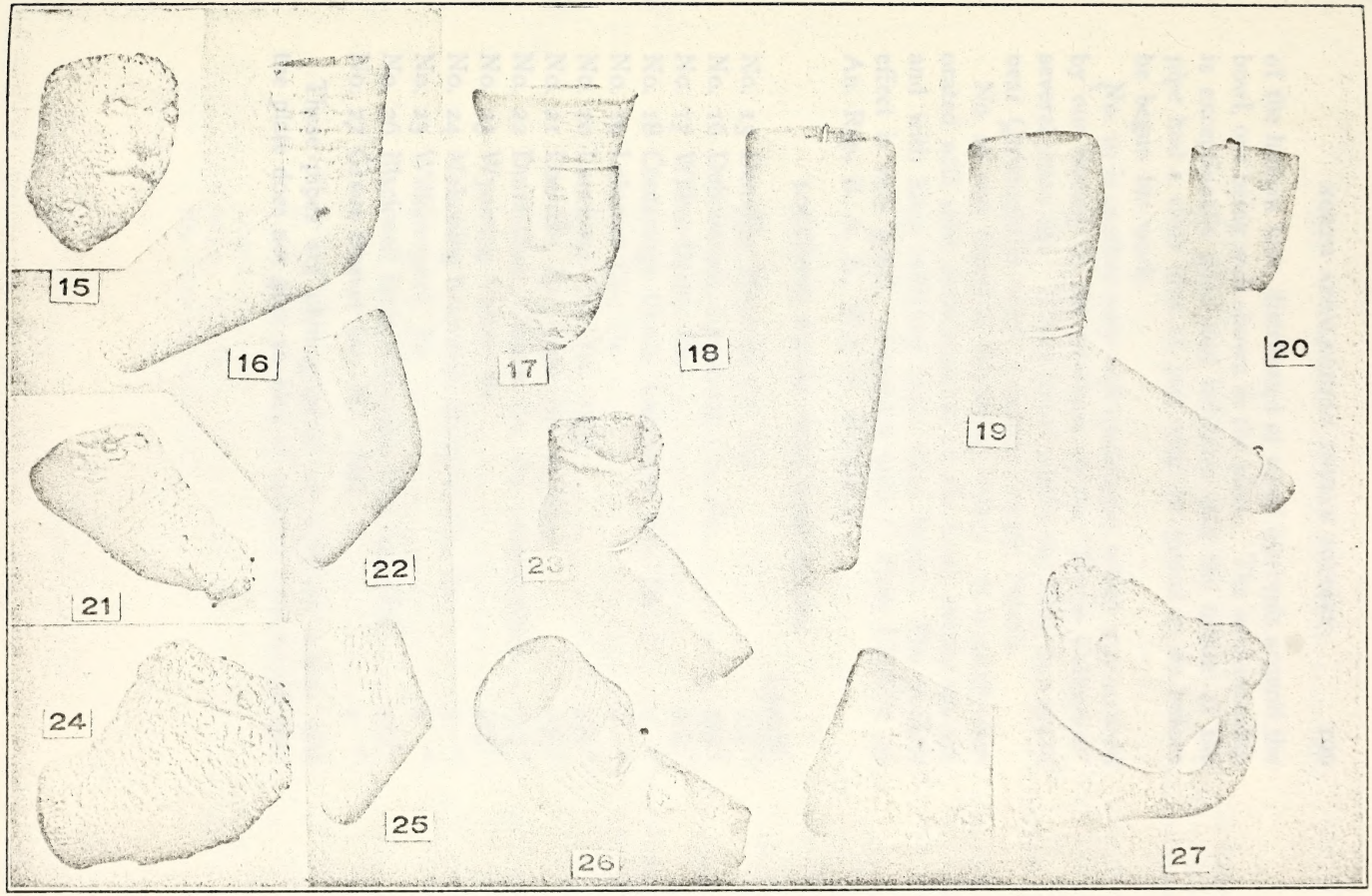


Plate No. 15. Indian Clay Pipes from Beaver, Clinton, Lancaster, Lebanon, Lycoming, Montour and Luzerne Counties, Pa. (Johnston, Martin, Stewart and Wyo. Hist. and Geo. Soc.)

Mme Ve de Jean Gal, fille (son père, Quinot, facteur, Paris) Peinture, Jeanne sur Faïence, Cologne

of the human face, distributed at equal intervals around the bowl, one being well shown in the plate. The workmanship is exceptionally good and indicates that the maker of the pipe had a clear idea of just what he meant to do before he began his work.

No. 19 is another very well made pipe, which was secured by our Society in the purchase of the "Berlin Collection" several years ago. It was found within our field, in a grave near Quintophella creek, Lebanon county, Penn'a.

No. 26 was found in Wyoming Valley. It is nicely decorated with nine protuberances on the bowl, evenly spaced, and with lines radiating from these knobs. The general effect is very good. (Compare with C Plate CXXIV 20 An. Rep. B. A. E., Wm H. Holmes.)

LOCATIONS WHERE PIPES WERE FOUND.

		Length.
No. 15	Danville, Montour Co., Pa.	2¼"
No. 16	Duboistown, Lycoming Co., Pa.	3¾"
No. 17	Wilkes-Barre, Pa.	2¼"
No. 18	Contestoga Creek, Lancaster Co., Pa.	4 "
No. 19	Lebanon Co., Pa.	4 "
No. 20	Lancaster Co., Pa., 1892	1¼"
No. 21	Danville, Pa. (near the Asylum)	2¾"
No. 22	Dunnstown, Clinton Co., Pa. (stone pipe)	2½"
No. 23	Wyoming Valley, Pa.	2⅝"
No. 24	Mahoning township, Montour Co., Pa.	3 "
No. 25	Williamsport, Pa.	2 "
No. 26	Blackwell farm, Lancaster Co., Pa., 1896	2½"
No. 27	Grave Beaver Co., Pa., 1898	4 "

These pipes are photographed on different scales, and the plate does not give an idea of relative sizes to the eye.

of the human face, distributed at equal intervals around the bowl, one being well shown in the plate. The workmanship is exceptionally good and indicates that the maker of the pipe had a clear idea of just what he meant to do before he began his work.

No. 19 is another very well made pipe, which was secured by our Society in the purchase of the "Berlin Collection" several years ago. It was found within our field, in a grave near Quintophella creek, Lebanon county, Penn'a.

No. 20 was found in Wyoming Valley. It is nicely decorated with nine protuberances on the bowl, evenly spaced, and with lines radiating from these knobs. The general effect is very good. (Compare with C Plate CXXIV 20 An. Rep. B. A. E., Wm H. Holmes.)

LOCATIONS WHERE PIPES WERE FOUND.

	Length.
No. 15 Danville, Montour Co., Pa.	2½"
No. 16 Dubolstown, Lycoming Co., Pa.	3½"
No. 17 Wilkes-Barre, Pa.	2½"
No. 18 Contestoga Creek, Lancaster Co., Pa.	4 "
No. 19 Lebanon Co., Pa.	4 "
No. 20 Lancaster Co., Pa., 1892	1½"
No. 21 Danville, Pa. (near the Asylum)	3½"
No. 22 Dunnstown, Clinton Co., Pa. (stone pipe)	2½"
No. 23 Wyoming Valley, Pa.	2¾"
No. 24 Mahoning township, Montour Co., Pa.	3 "
No. 25 Williamsport, Pa.	2 "
No. 26 Blackwell farm, Lancaster Co., Pa., 1896	2½"
No. 27 Grave Beaver Co., Pa., 1898	4 "

These pipes are photographed on different scales, and the plate does not give an idea of relative sizes to the eye.

DESCRIPTION OF PLATE NO. 16.

This large fragment of a beautiful large vessel was found, by some boys, at the bend of the river below Wilkes-Barre, Pa., after the unusually high water in the Susquehanna river in the year 1902, which had washed it out.

From the account given by the boys, of the manner in which they found it, they probably had a very large part of the entire vessel in their possession. They set it up and threw stones at it until it was broken into a number of pieces.

This pot has the beaded decoration below the rim, and it may be remarked that among 200 rims from Wyoming Valley, examined by the writer, eight, or two per cent. had this style of decoration.

From an approximate restoration of the vessel, using the fragment as a guide, it must have been a large one, the diameter at the mouth being 14 inches and of the bowl about 18 inches. The walls were of a uniform thickness of ½ inch. The fragment illustrated measures 10 inches at the rim.

Taking the body to have been nearly globular the capacity would have been about 40 quarts.

All of the features of this specimen were exceptionally fine and the writer has seen few in the region which excelled it. Perhaps as good a short description as could be given of this vessel would be to say that it had much of the beauty of simplicity.

Elsewhere in this paper a probable purpose for this beading at the rim, besides decoration, is discussed. In some cases the beading showed on the outside and in other cases on the inside of the rim; in the latter manner it did not add to the beauty of the vessel much, if at all.

Prof. C. C. Willoughby in his contribution to the Putnam Anniversary volume in 1909, on "Pottery of the New England Indians" page 84, etc., classifies this style of decoration as archaic Algonquin, because it has been found deeply buried in shell heaps in the tidal regions of Maine. It is found scattered over much of the territory covered by this paper, especially in the watershed of the two branches of the Susquehanna river.

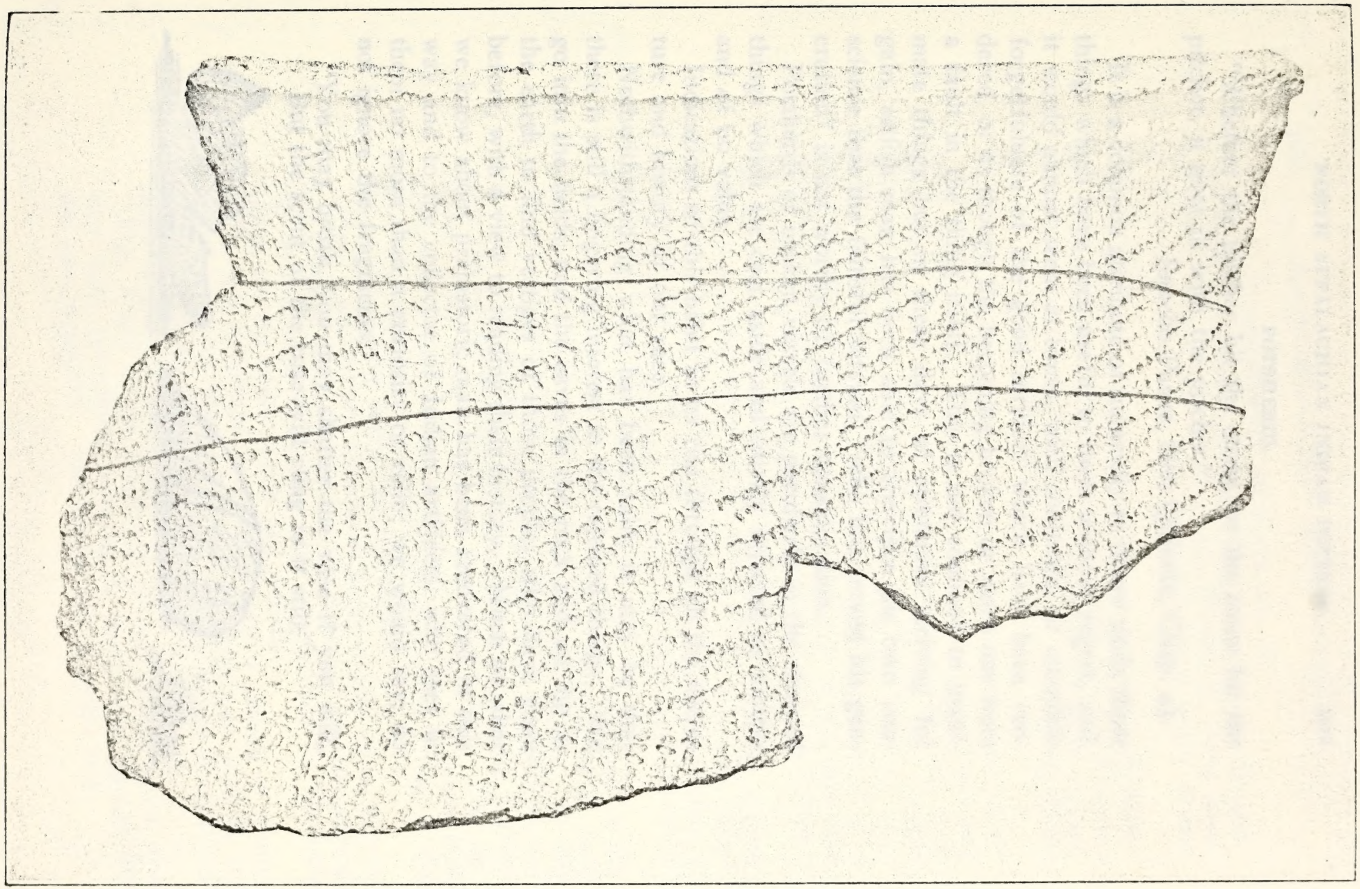


Plate No. 16. Fragment of vessel, about one-half actual size. The vessel measured approximately 14 inches in diameter at the mouth and 18 inches at the body. Capacity about forty quarts. (Wyo. Hist. and Geo. Soc.)

POTSHERDS.

"Whether the pitcher hit the stone, or the stone hit the pitcher, it goes ill with the pitcher."

Sancho Panza, Don Quixote, Chap. 43.

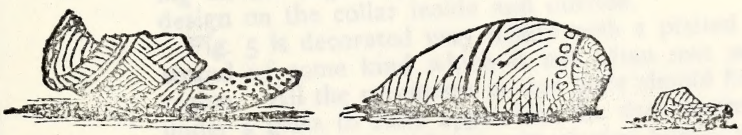
It is a common attribute of humanity to throw aside those things which have been useful to them without regret, and, it would almost seem at times, with contempt, or complete forgetfulness of the good services which have been rendered, or as though the becoming broken or worn out were a fault in the thing itself. This is not confined to inanimate things but in these days of strenuous striving for gain, selfish man has been able to convince his own conscience that the faithful servant, "who has served his generation" is not worthy of further consideration.

Potsherds or broken vessels are peculiarly in the class of things which are cast aside and utterly rejected as useless and of no value.

Indications of this habit in us run through all the literature and history of our race.

Nothwithstanding what has been said, it may be that there is still a lingering interest in the rejected things. We go into the fields, and the caves in the rock and we dig in the earth to find vestiges of those peoples who have gone before, with a view to reading their history. Much of what we know about prehistoric man has been recovered in this way and to the collector of Indian artifacts, who sees in them no more than a curiosity or relic; we would say, do not ignore the fragments.

"You may break, you may shatter the vase if you will,
But the scent of the rose will cling to it still."





DESCRIPTION OF PLATE NO. 17.

All of the specimens shown in this plate are from Wyoming Valley. Fig. 1 was found on the Thomas P. Hunt farm on Wyoming Flats, and was exposed by high water in the river in 1913.

No. 1 was quite a large vessel, being 10½ inches in diameter at the mouth. The body was probably not much larger, as the sides of the vessel seem to have been nearly perpendicular, without either neck or collar, resembling Plate No. 2.

The style of decoration is similar to several other specimens shown. The finger prints show where the finger was held when pressing the beading through. The walls were quite uniformly ⅜ of an inch thick. The color was a bright yellow throughout, there being no black fire mottling upon the body to indicate use over the fire. In looking at a vessel of this color one would think that it was not hard or strong, yet in this instance the material is so hard that a file does not easily make an impression upon it.

Fig. 7 was also found on the Hunt farm, after the freshet of 1902, when the writer secured it. The boy who picked it up said that it was nearly whole, but seeing no value in it, he threw it down and shattered it into many pieces; it was quite small but of fine shape.

Fig. 2 was found on the west bank of the river, at the bend below Wilkes-Barre. It shows exceptionally good taste in the decoration, which is of a rare design. In this case the pitted marks, just below the collar, are shallow and were not forced through to produce the beading as in other cases. They were for purely decorative effect. The perpendicular lines running down from the rim are drawn with care and are also rarely seen in the region. Fig. 4 also shows the pitting solely for decoration.

Figs. 3 and 10 are illustrated because they show decorative features but rarely seen. Fig. 6 has an unusual scalloping on the edge of the rim and is decorated in the same design on the collar inside and outside.

Fig. 5 is decorated very neatly with a plaited or twisted strand of some kind which is not often met with in this region. All the specimens in this plate should be examined under a glass to fully appreciate the decorations.

Figs. 8 and 11 are fragments of pipe bowls, which show very tasty decorative features, in much finer figures than are seen in pottery. The figures are ¾ actual size.

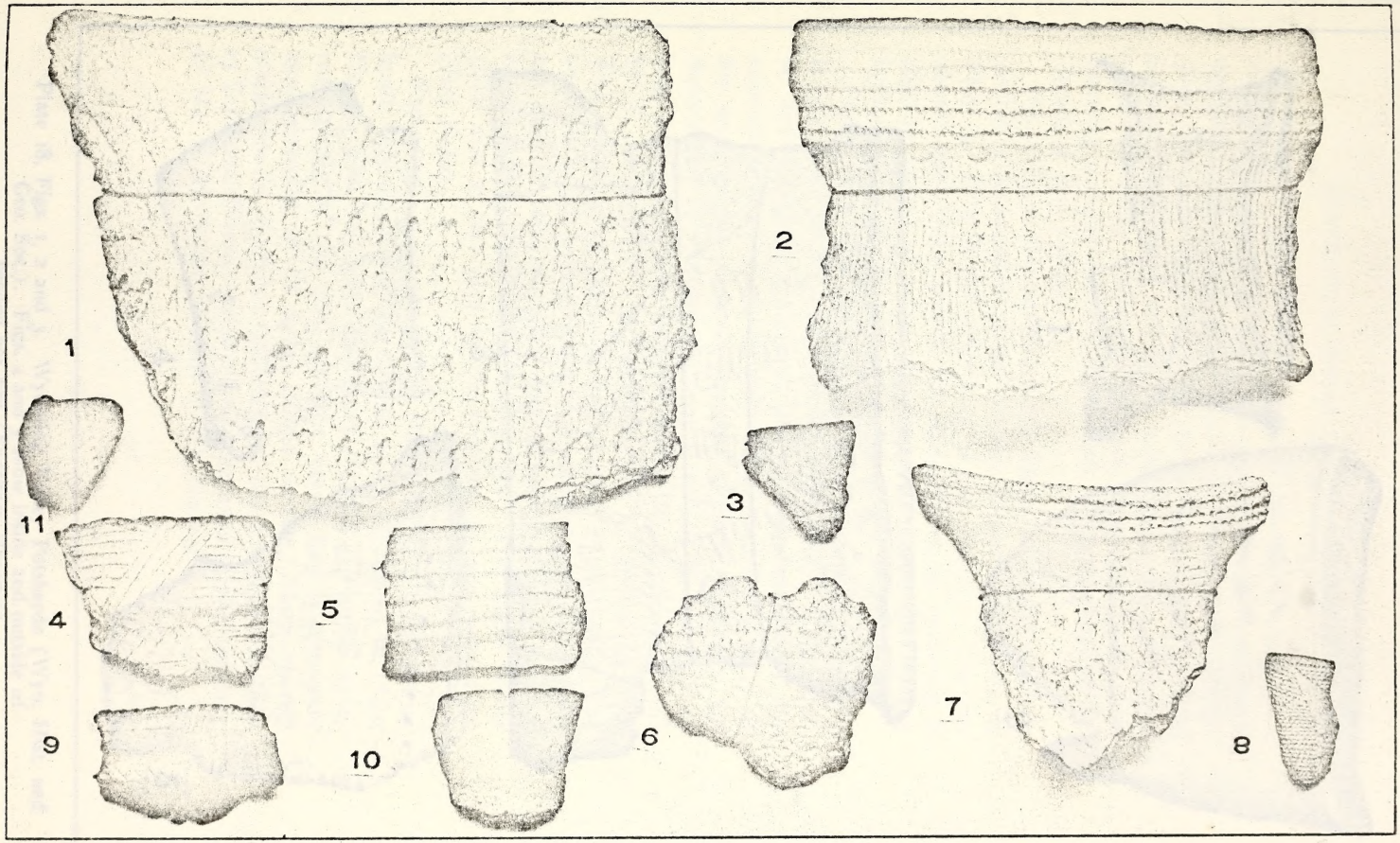
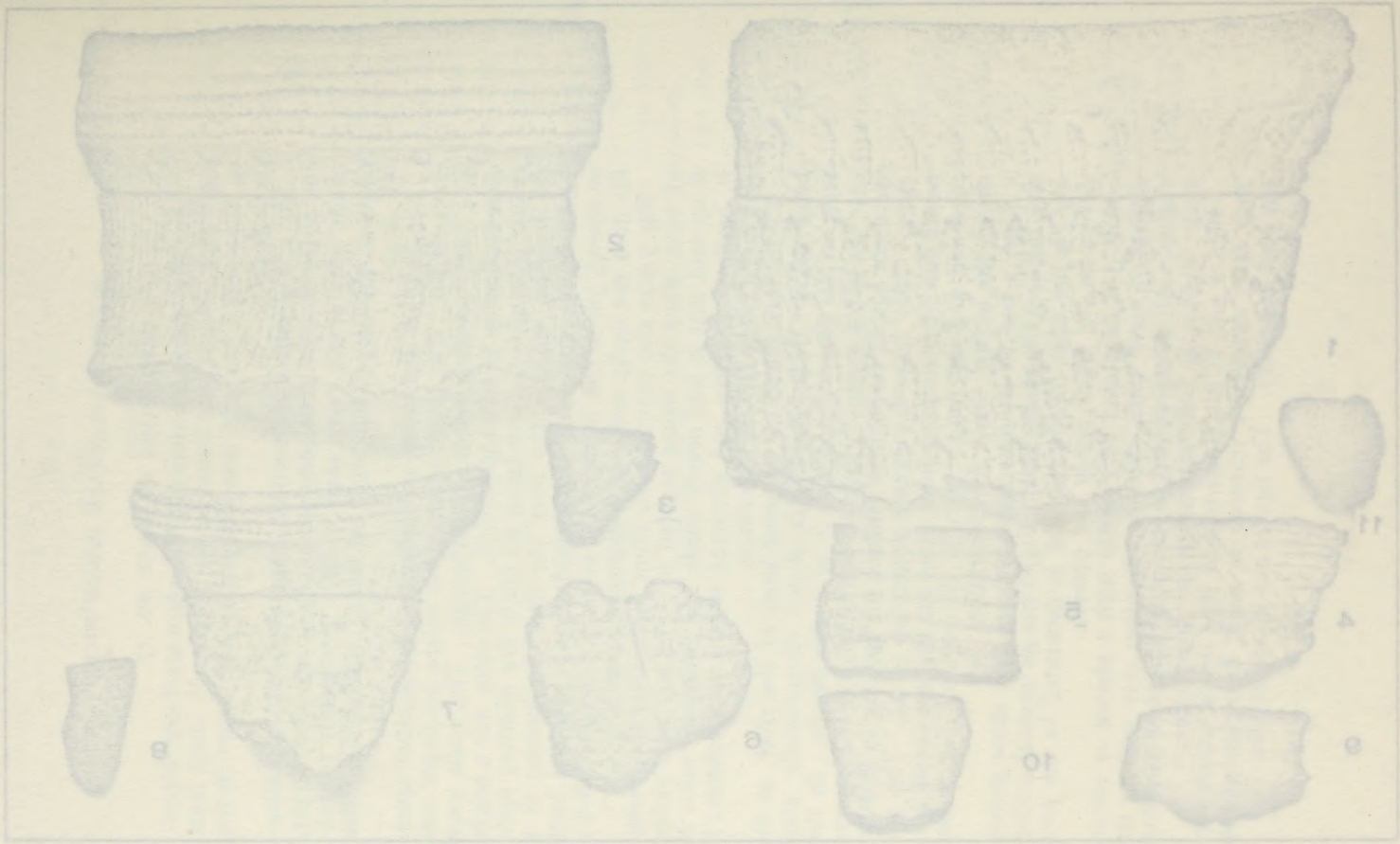


Plate No. 17. Wyoming Valley Potsherds, showing decorative features and form of upper part of vessels. (Wyo. Hist. and Geo. Soc. (About three-fourths actual size.)


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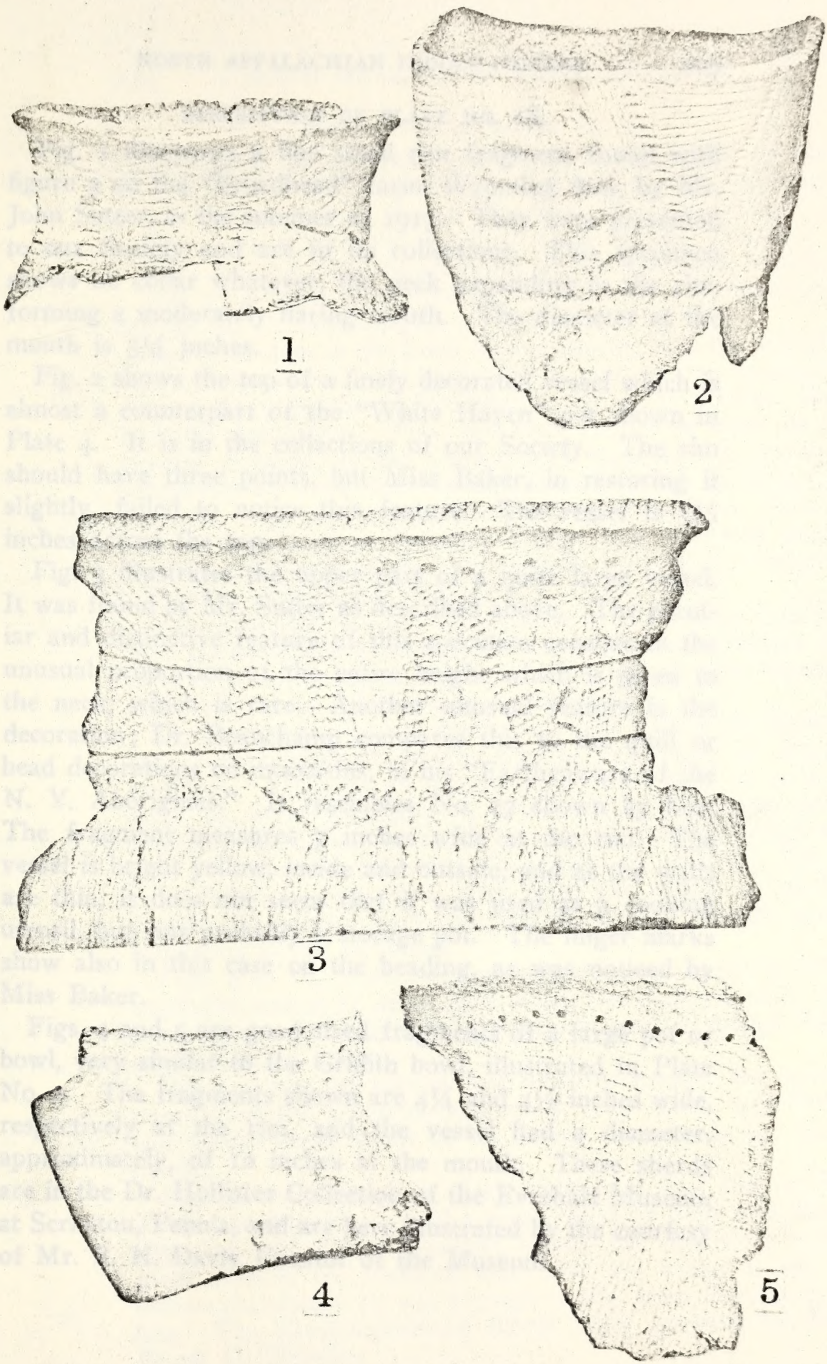


Plate 18, Figs. 1, 2 and 3. Wyoming Valley Potsherds (Wyo. Hist. and Geo. Soc.). Figs. 4 and 5 show inside and outside of beaded pot rim (Everhart Museum).

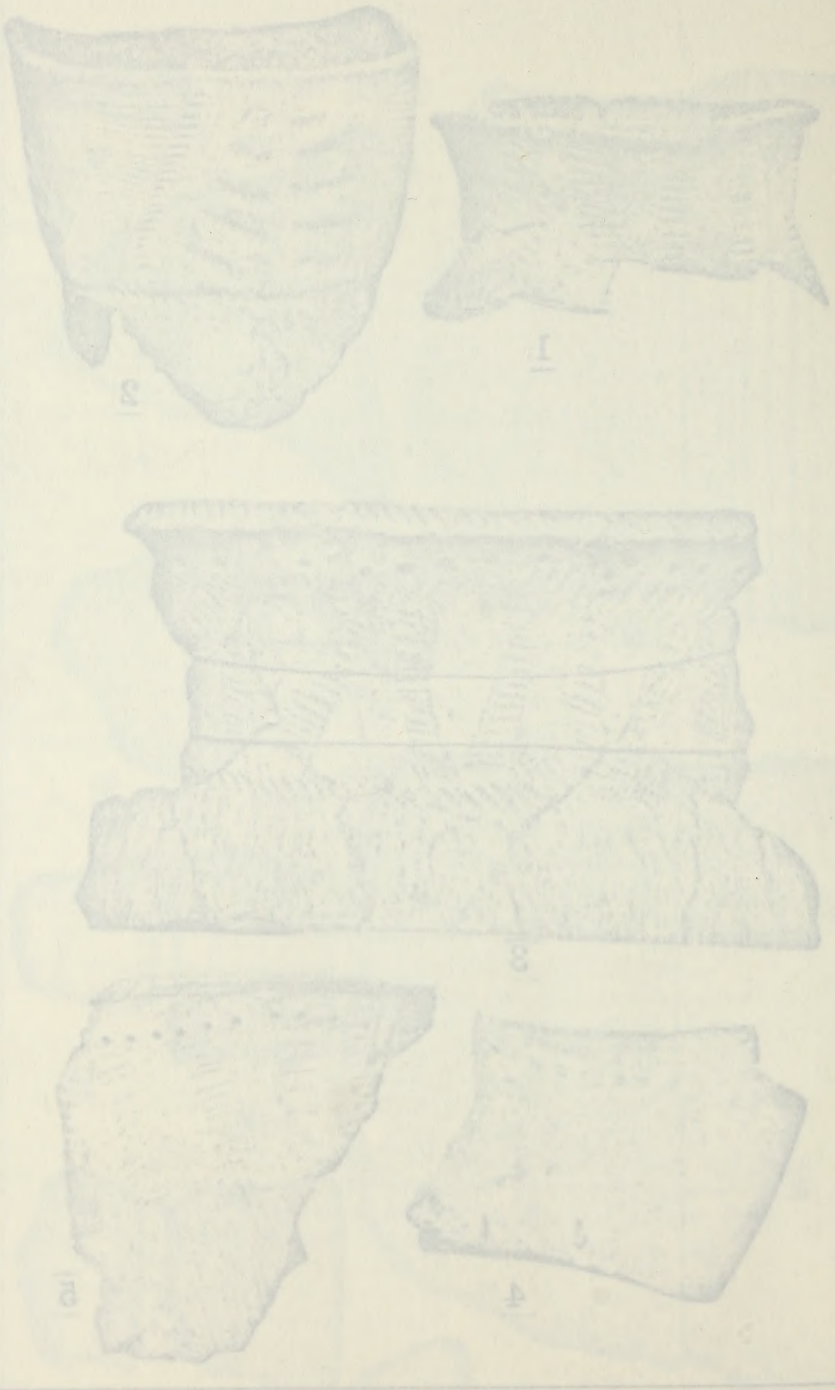


Plate 18. Figs. 1, 2 and 3. Wyoming Valley Potsherds (Wyo. Hist. and Geo. Soc.). Figs. 4 and 5 show inside and outside of beaded pot rim (Everhart Museum).

DESCRIPTION OF PLATE NO. 18.

Fig. 1 illustrates a fine small rim fragment found with figure 3 on the "Broadhead" farm, Wyoming flats, by Mr. John Sutter, in the summer of 1913. They were presented to our Society and are in its collections. This specimen shows no collar whatever, the neck expanding to the rim, forming a moderately flaring mouth. The diameter at the mouth is 5¼ inches.

Fig. 2 shows the top of a finely decorated vessel which is almost a counterpart of the "White Haven" pot shown in Plate 4. It is in the collections of our Society. The rim should have three points, but Miss Baker, in restoring it slightly, failed to notice this feature. The vessel is 5½ inches across the top.

Fig. 3 illustrates the upper part of a quite large vessel. It was found by Mr. Sutter as described above. The peculiar and distinctive feature of this specimen consists in the unusual proportion of the entire height which is given to the neck, which is rare. Another unusual feature is the decoration; Dr. Beauchamp compares this to the quill or bead decorations on moccasins, in his "Earthenware of the N. Y. Aborigines." It resembles No. 27 shown by him. The fragment measures 7 inches wide at the rim. The vessel is bright yellow, inside and outside, and as the walls are thin, it does not seem that it was used as a cooking utensil, but was probably a storage pot. The finger marks show also in this case on the beading, as was noticed by Miss Baker.

Figs. 4 and 5 are good sized fragments of a large pot or bowl, very similar to the Griffith bowl, illustrated in Plate No. 2. The fragments shown are 4¼ and 4½ inches wide, respectively at the rim, and the vessel had a diameter, approximately, of 12 inches at the mouth. These sherds are in the Dr. Hollister Collection of the Everhart Museum at Scranton, Penn'a, and are here illustrated by the courtesy of Mr. R. N. Davis, Curator of the Museum.

DESCRIPTION OF PLATE NO. 19

This plate shows specimens from two locations on the west branch of the Susquehanna river and a single specimen from Yadkin county, North Carolina, for comparison.

Figs. 1 to 7 inclusive are from Lock Haven, Penn'a.

Figs. 8 to 12 inclusive are from Northumberland, Penn'a.

Fig. 13 is from Yadkin county, N. C., and was furnished by Mr. R. D. Wainwright, of Roanoke, Va.

It will be seen in the Lock Haven sherds, that the beaded style of decoration was considerably used in that location. Among thirty potsherds furnished by Dr. T. B. Stewart, six had this decoration. This, however, cannot be taken as a general average, as the Doctor may have sent a greater proportion of these than would obtain in a full showing of the field. All of the types here shown from Lock Haven can be duplicated in Woymig Valley, and it would seem that the occupants of the two regions, separated by nearly 100 miles, were closely related.

The clays used at Lock Haven seem to be of better quality than we have here at home, but the workmanship seems to be more poorly or carelessly done. The lack of good square edges and clean cut outlines is noticeable.

The limited number of specimens from both Lock Haven and Northumberland merely suggest the wares of those localities. Although an earnest effort was made to secure more of these potsherds, it produced small results, and evidently the collectors in the two places have neglected to give attention to collecting fragments of pottery. They have failed to appreciate that, with the rarity of whole vessels, the pottery ware can only be studied through such fragments as can be found.

Figs. 8 to 11, from Northumberland, are tempered with vegetable matter of some kind which has decayed away, so that they are quite light and porous and seem as though they might float on water.

Fig. 9 shows the human face modeled exactly like specimens from the Iroquois country of New York, and there can be but small doubt of its having been made by those people.

Fig. 12 was found at Northumberland and Fig. 13 in Yadkin county, N. C., and a comparison of them will show that they are almost identical, indeed the similarity is so great even to the material used, that the writer is led to believe that figure 12 was brought bodily from North Carolina. The Northumberland sherds were gathered by Mr. Frank D. Shovlin.

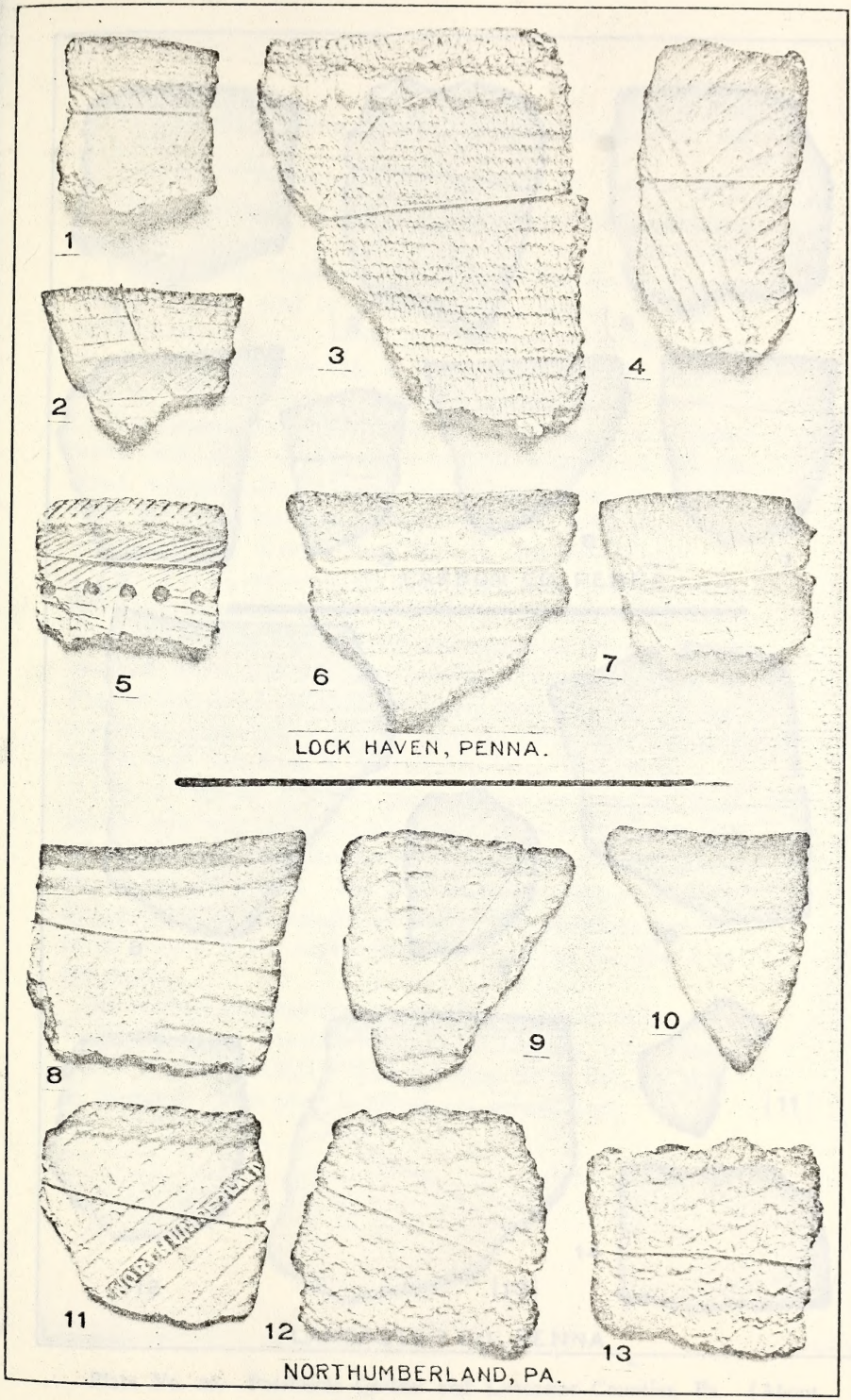


Plate No. 19. Potsherds from Clinton and Northumberland Counties, Pa., and Yadkin Co., N. C. One-half actual size. (Stewart and Wren.)

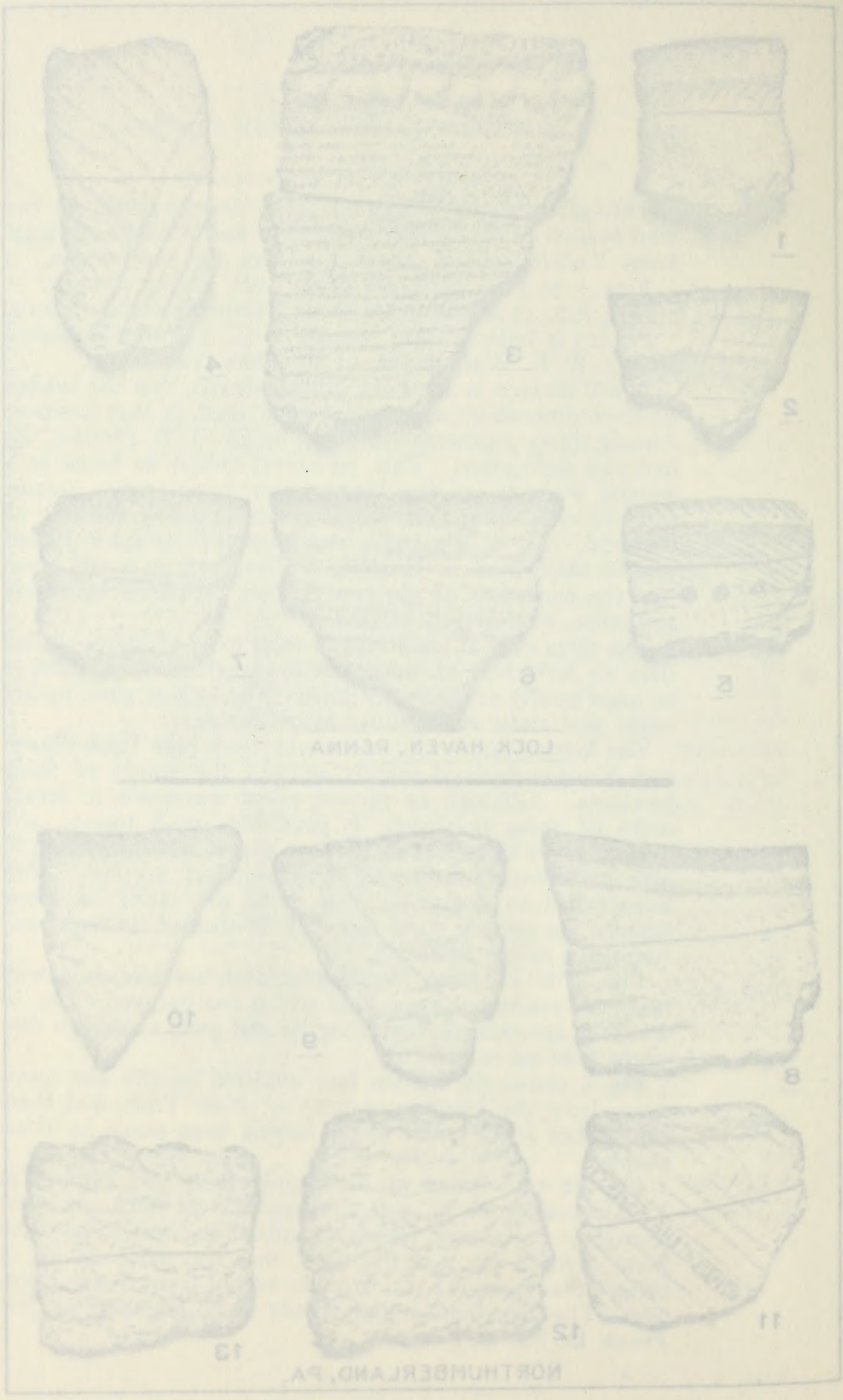


Plate No. 19. Potsherds from Clinton and Northumberland Counties, Pa., and Yadkin Co., N. C. One-half actual size. (Stewart and Wren.)

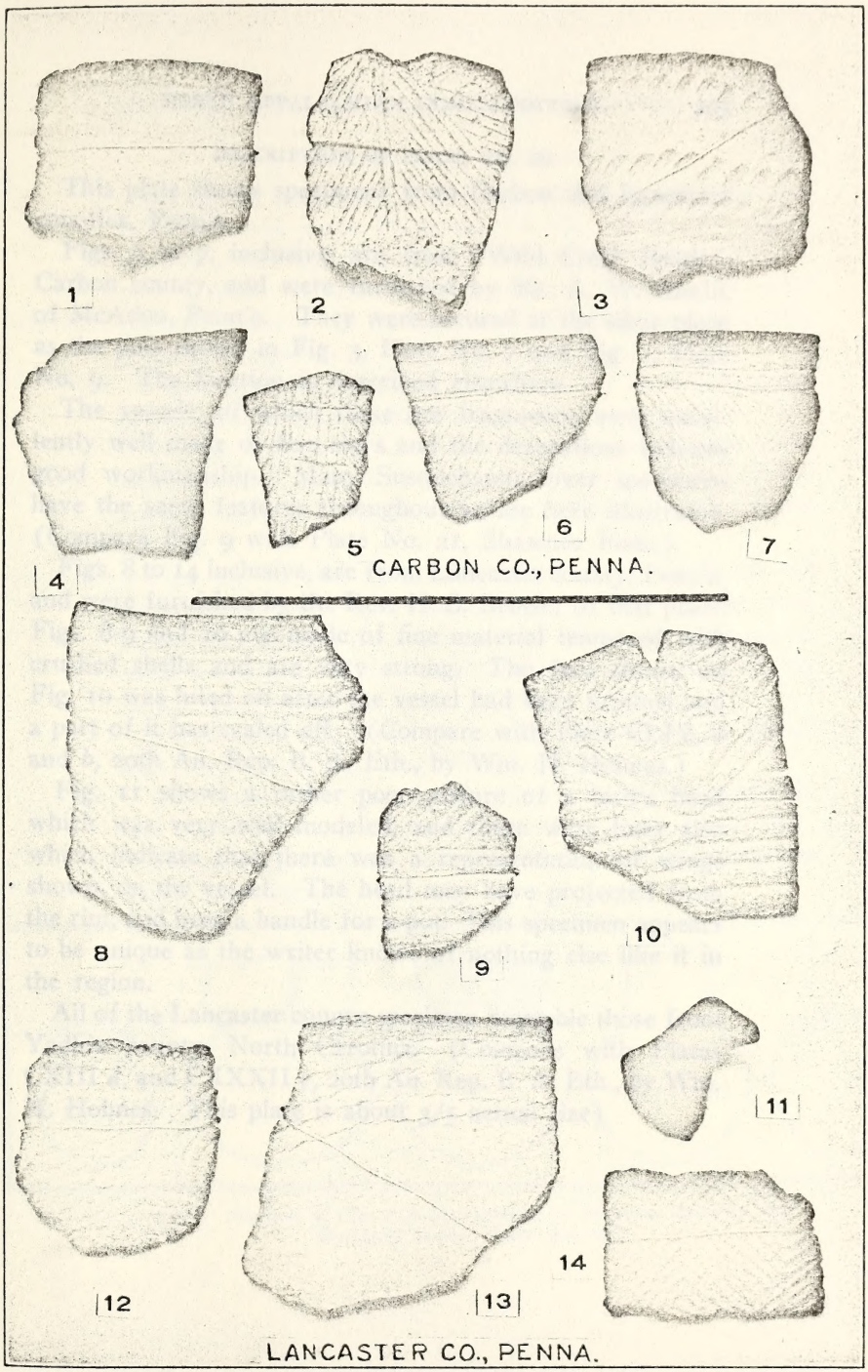


Plate No. 20. Potsherds Carbon and Lancaster Counties, Pa. (About one-half actual size.) (Wren.)

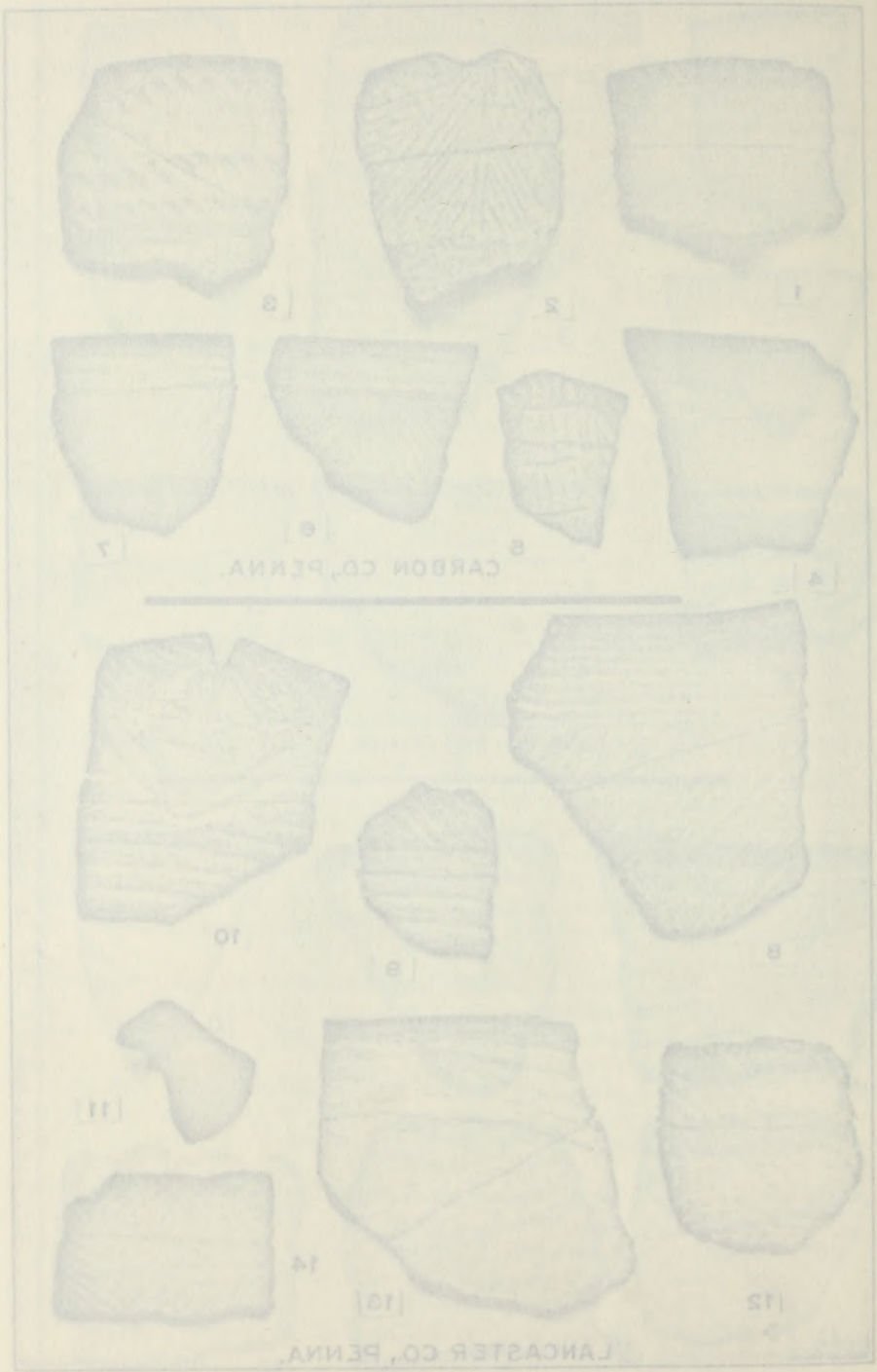


Plate No. 20. Potsherds Carbon and Lancaster Counties, Pa. (About one-half actual size.) (Wren.)

DESCRIPTION OF PLATE NO. 20

This plate shows specimens from Carbon and Lancaster counties, Penn'a.

Figs. 1 to 7, inclusive, are from "Wild Creek Kettle", Carbon county, and were furnished by Mr. A. W. Gimbi, of McAdoo, Penn'a. They were secured at the same place as the pots shown in Fig. 3, Plate No. 7 and Fig. 1, Plate No. 9. The location is described elsewhere.

The vessels, of which these are fragments, were excellently well made of fine clays and the decorations indicate good workmanship. Many Susquehanna river specimens have the same features throughout as are here illustrated. (Compare Fig. 9 with Plate No. 21, Shawnee Flats.)

Figs. 8 to 14 inclusive, are from Lancaster county, Penn'a, and were furnished by the Rev. H. S. Brinser of that place. Figs. 8-9 and 10 are made of fine material tempered with crushed shells and are very strong. The face shown on Fig. 10 was luted on after the vessel had been finished and a part of it has scaled off. (Compare with Plate CLIV, *a* and *b*, 20th An. Rep. B. A. Eth., by Wm. H. Holmes.)

Fig. 11 shows a rather poor picture of a bird's head which was very well modeled, and there were lines also which indicate that there was a representation of wings shown, on the vessel. The head may have projected from the rim, and been a handle for a pot. This specimen appears to be unique as the writer knows of nothing else like it in the region.

All of the Lancaster county specimen resemble those from Yadkin county, North Carolina. (Compare with Plates CXIII *d*, and CXXXII *e*, 20th An. Rep. B. A. Eth., by Wm. H. Holmes. This plate is about 3/5 actual size)

DESCRIPTION OF PLATE NO. 20

This plate shows specimens from Carbon and Lancaster counties, Penn'a.

Figs. 1 to 7, inclusive, are from "Wild Creek Kettle", Carbon county, and were furnished by Mr. A. W. Grimbl, of McAdoo, Penn'a. They were secured at the same place as the pots shown in Fig. 3, Plate No. 7 and Fig. 1, Plate No. 9. The location is described elsewhere.

The vessels, of which these are fragments, were excellently well-made of fine clays and the decorations indicate good workmanship. Many Susquehanna river specimens have the same features throughout as are here illustrated. (Compare Fig. 9 with Plate No. 21, Shawnee Flats.)

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Fig. 11 shows a rather poor picture of a bird's head which was very well modeled, and there were lines also which indicate that there was a representation of wings shown, on the vessel. The head may have projected from the rim, and been a handle for a pot. This specimen appears to be unique as the writer knows of nothing else like it in the region.

All of the Lancaster county specimen resemble those from Yadkin county, North Carolina. (Compare with Plates CXIII d, and CXXXII c, 20th An. Rep. B. A. Eth., by Wm. H. Holmes. This plate is about 3/5 actual size)

DESCRIPTION OF PLATE NO. 21

All of the specimens of pot rims shown in this plate are from Shawnee Flats, Plymouth, Penn'a. With few exceptions they are types common to Wyoming Valley. Figs. 1 and 3, both in material and general features, resemble southern pottery, as though they had been brought bodily from that region.

Figs. 1, 2 and 3 show no collar and are classed by some good authorities as distinctively Algonquian types.

In Fig. 6, the lines running around the collar were made with a twisted or plaited fibre, which is not common in the region. Compare Fig. 9 with Fig. 2, Plate No 20, Carbon county.

Figs. 13, 14 and 15 are illustrated as showing the coil method of building up a vessel, 13 and 15 showing the wide bands used and 14 the extreme base where the coil started from a centre. These features show much better in the actual specimens than in the picture.

The plate is 2/5 actual size. (See description of Shawnee Flats with Camp and Village Sites.)

This locality has been productive of many fine potsherds and the large vessel shown in Plate No. 3 was found here.

The photographs are so clear that further description seems superfluous.

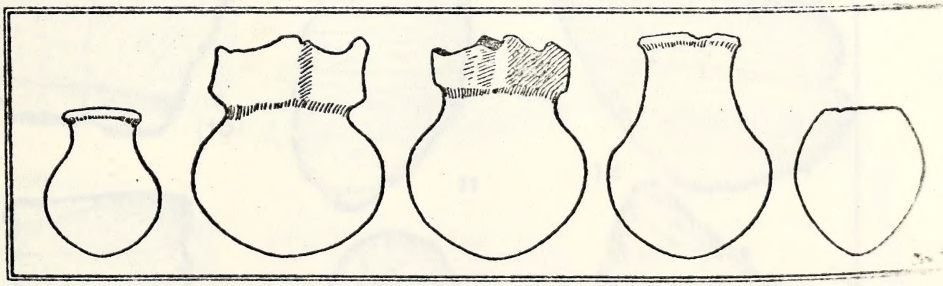
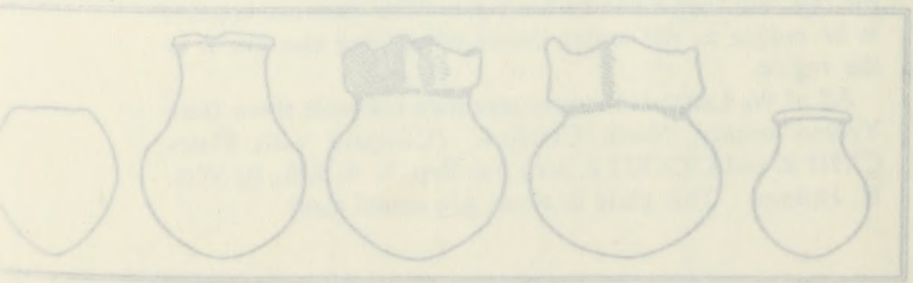


Fig. 7. Outlines of Clay Pots in collections of Wyoming Historical and Geological Society (from sketches).



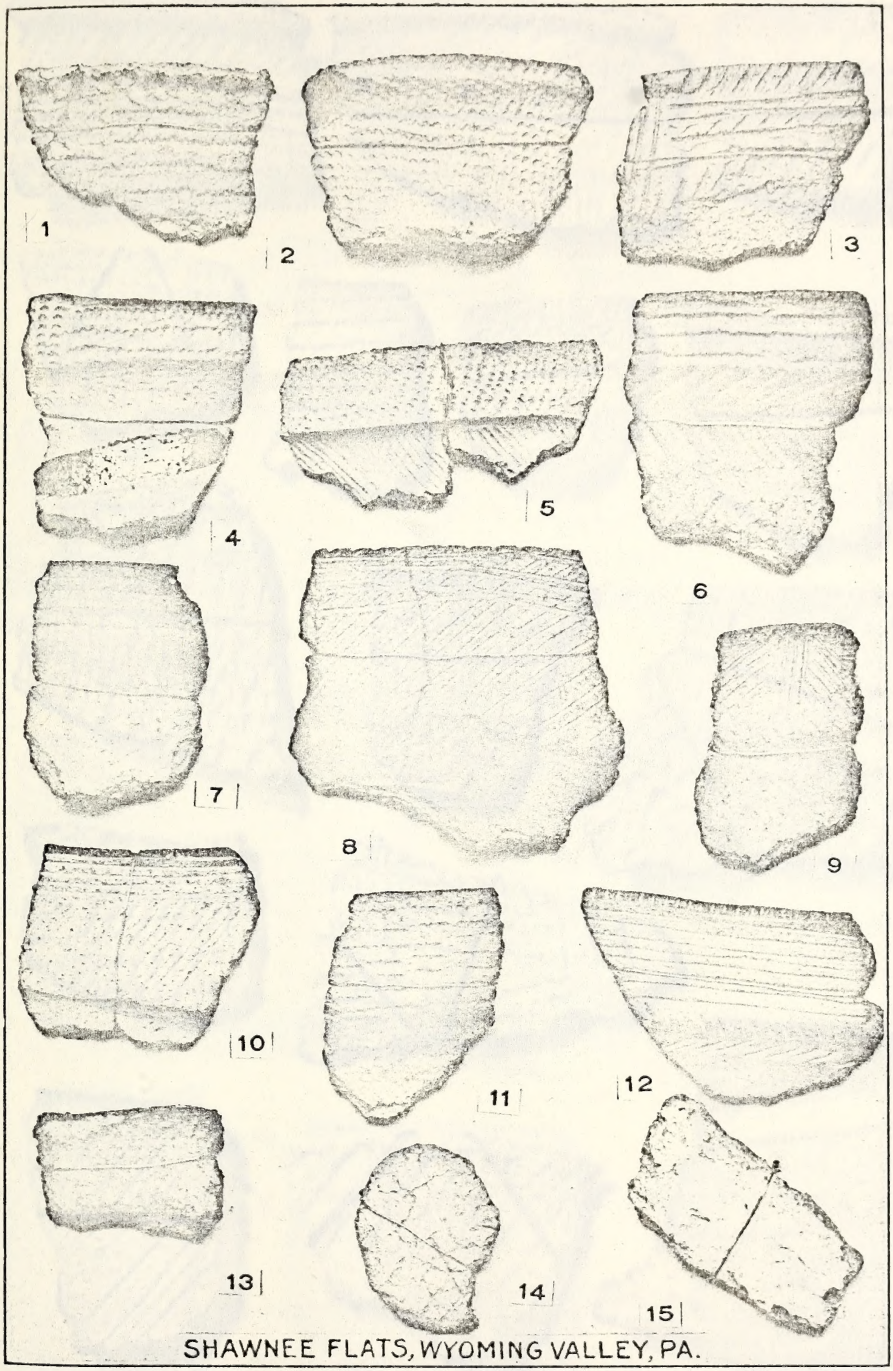


Plate No. 21. Potsherds, Shawnee Flats, Wyoming Valley, Pa. (About two-fifths actual size.) (Wren.)

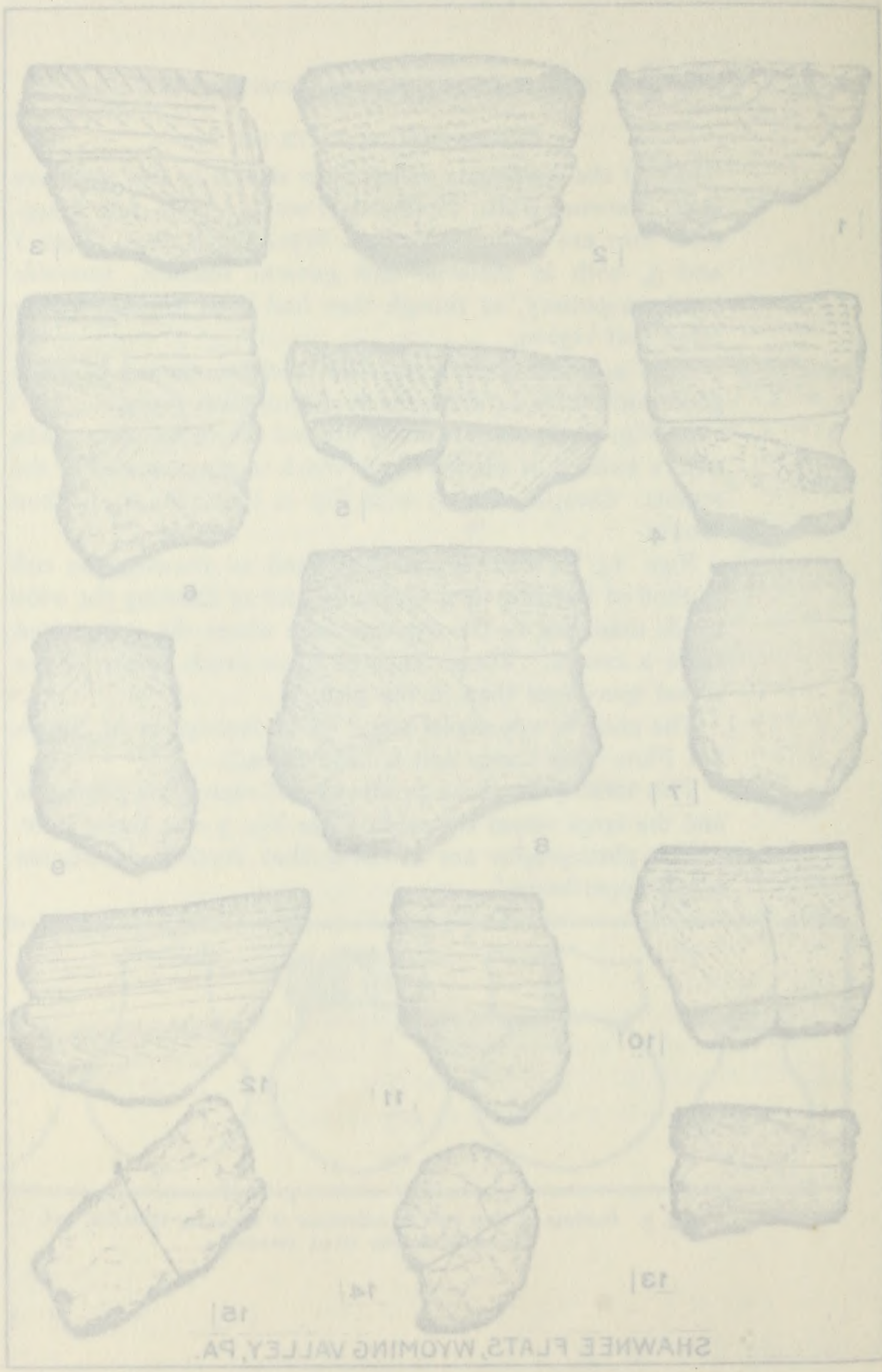
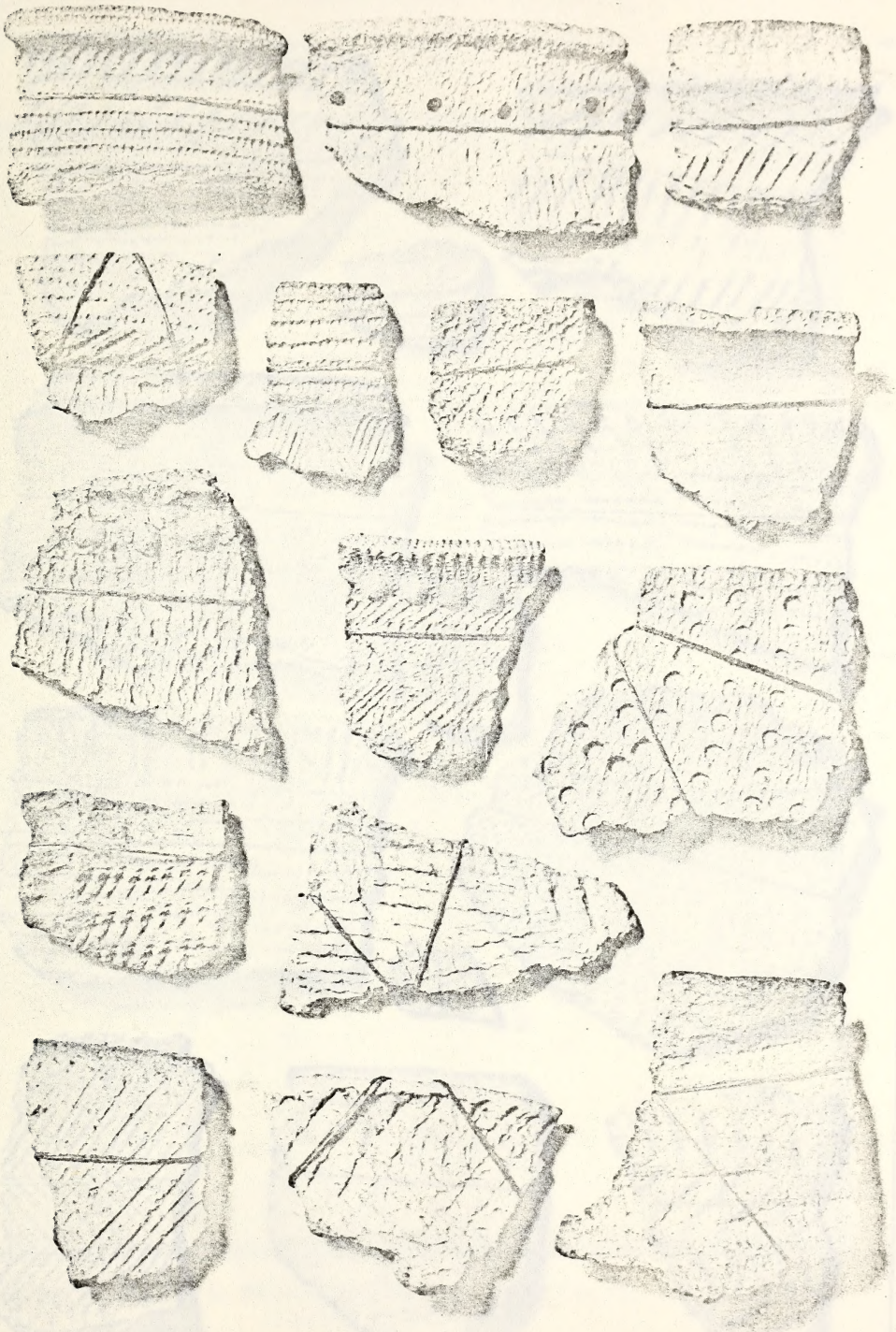
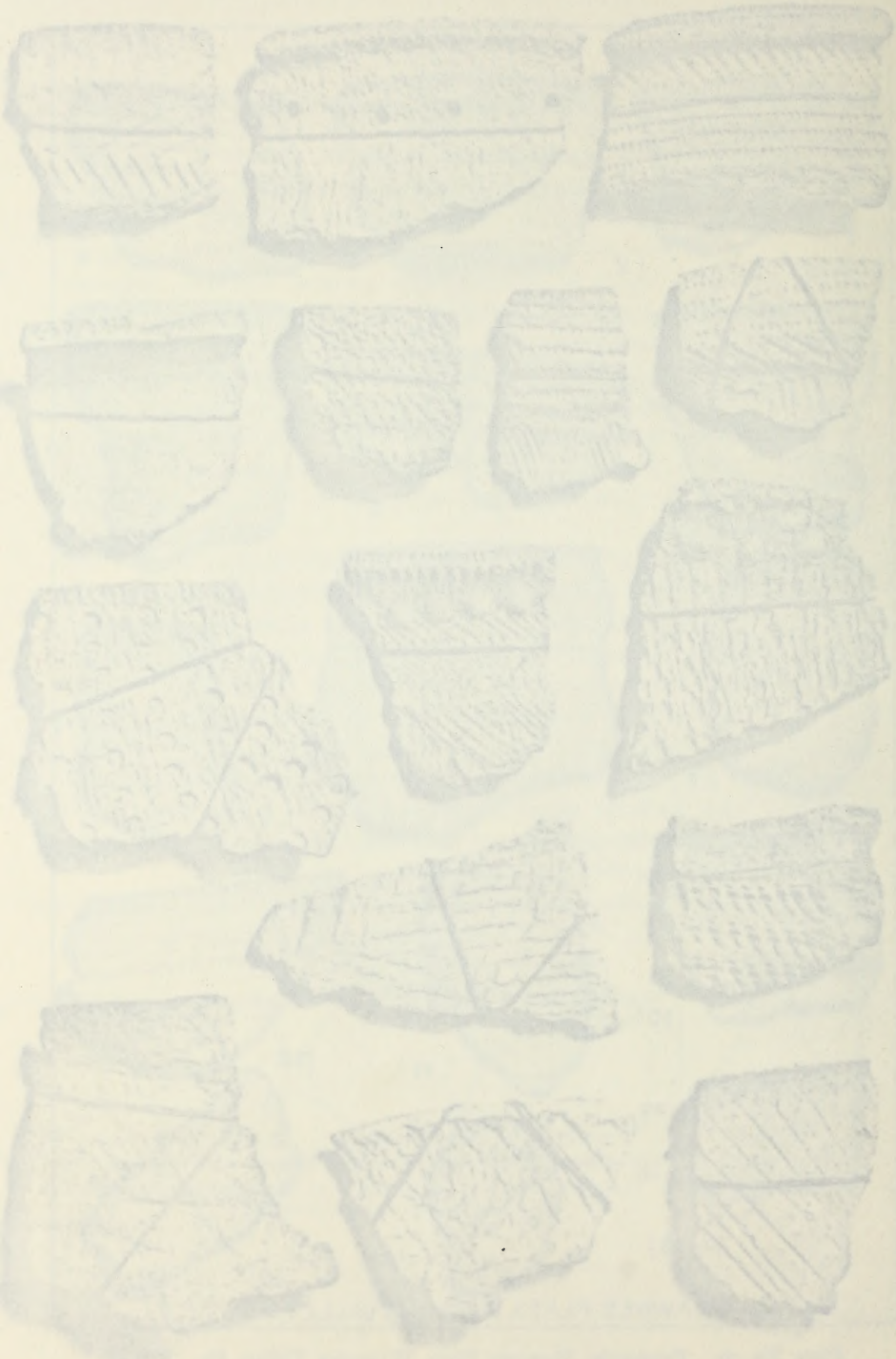


Plate No. 21. Potsherds, Shawnee Flats, Wyoming Valley, Pa. (About two-fifths actual size.) (Wren.)



No. 22. Illustrates Potsherds, showing the decorative features of pottery from different alities in Wyoming Valley, Pa. In collections of The Wyoming Historical and Geological Society, Wilkes-Barre, Pa. (From Vol. IX, Wyo. Hist. and Geo.



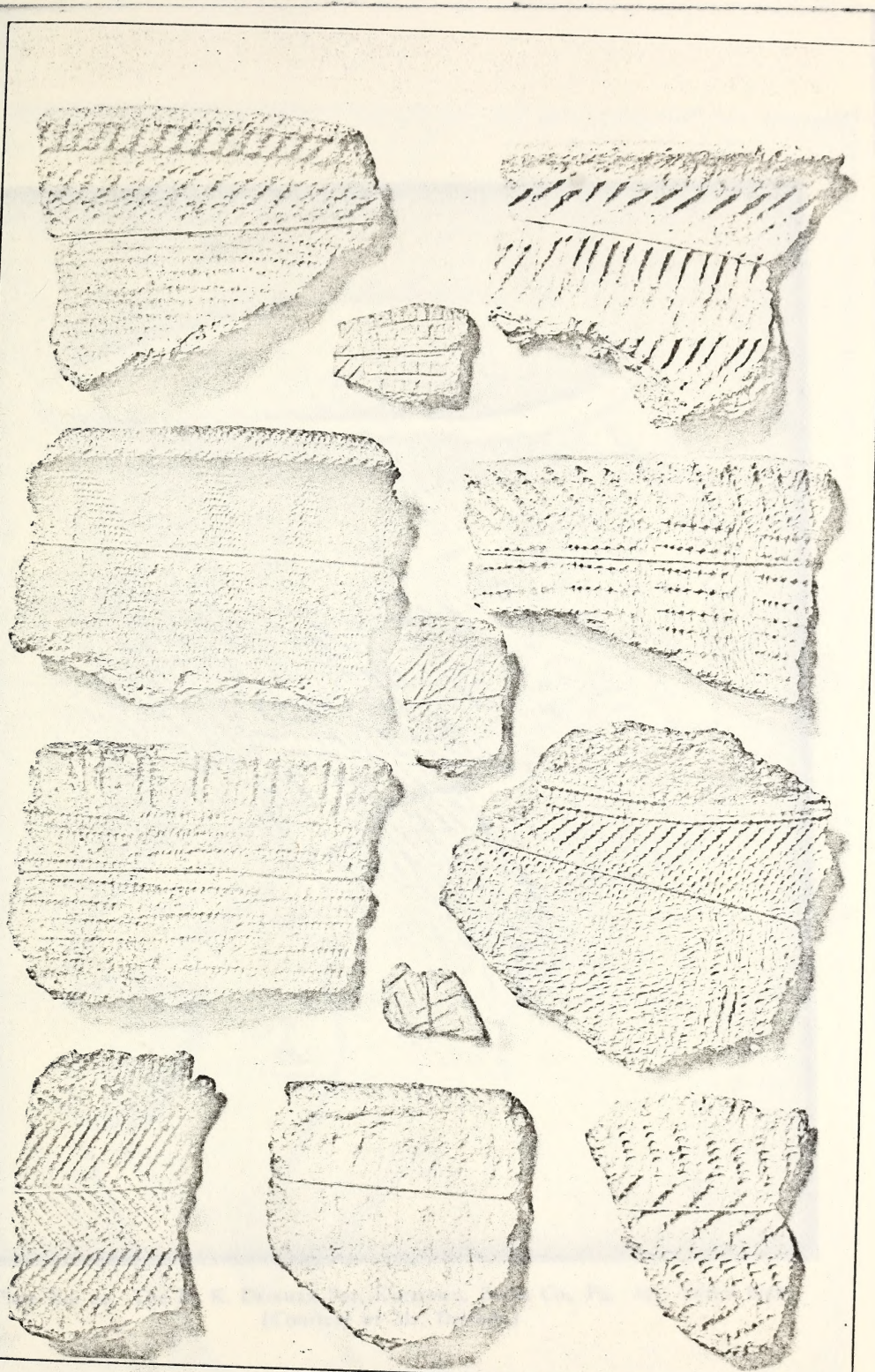
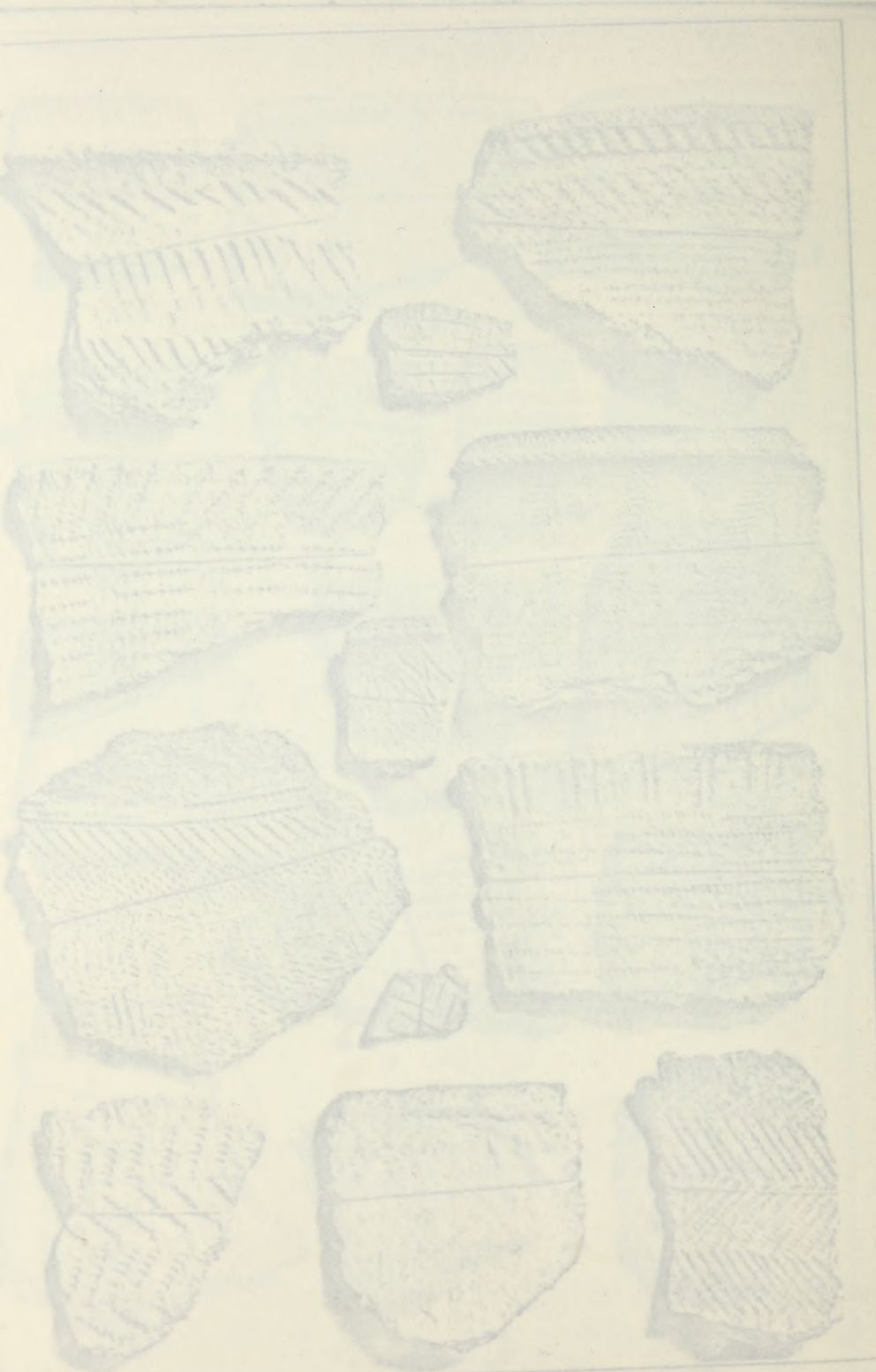


Plate No. 23 illustrates pot rims from several locations in Wyoming Valley, Pa., showing shapes and decorative features. Many of the specimens seem to resemble the Southern wares closely. (Wyo. Hist. and Geo. Soc.)



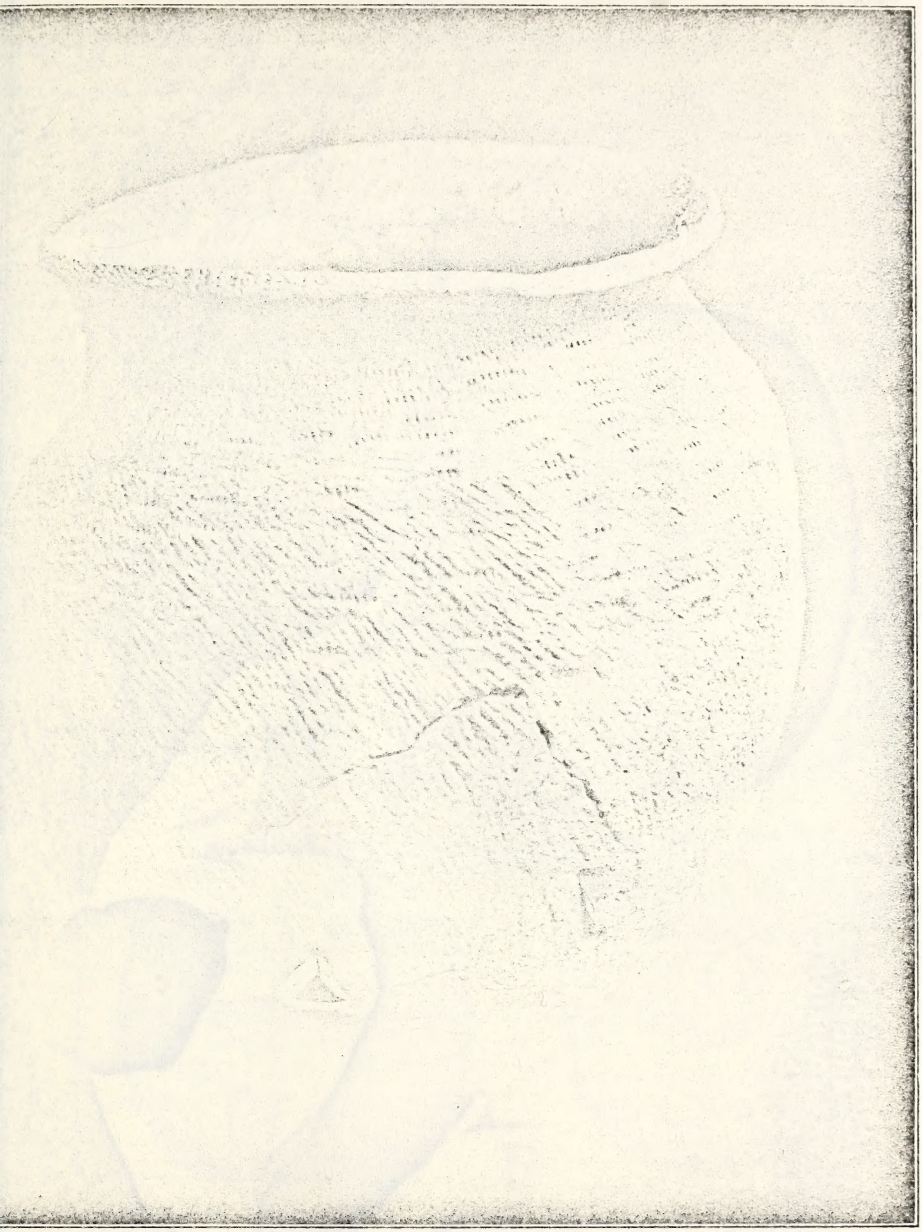
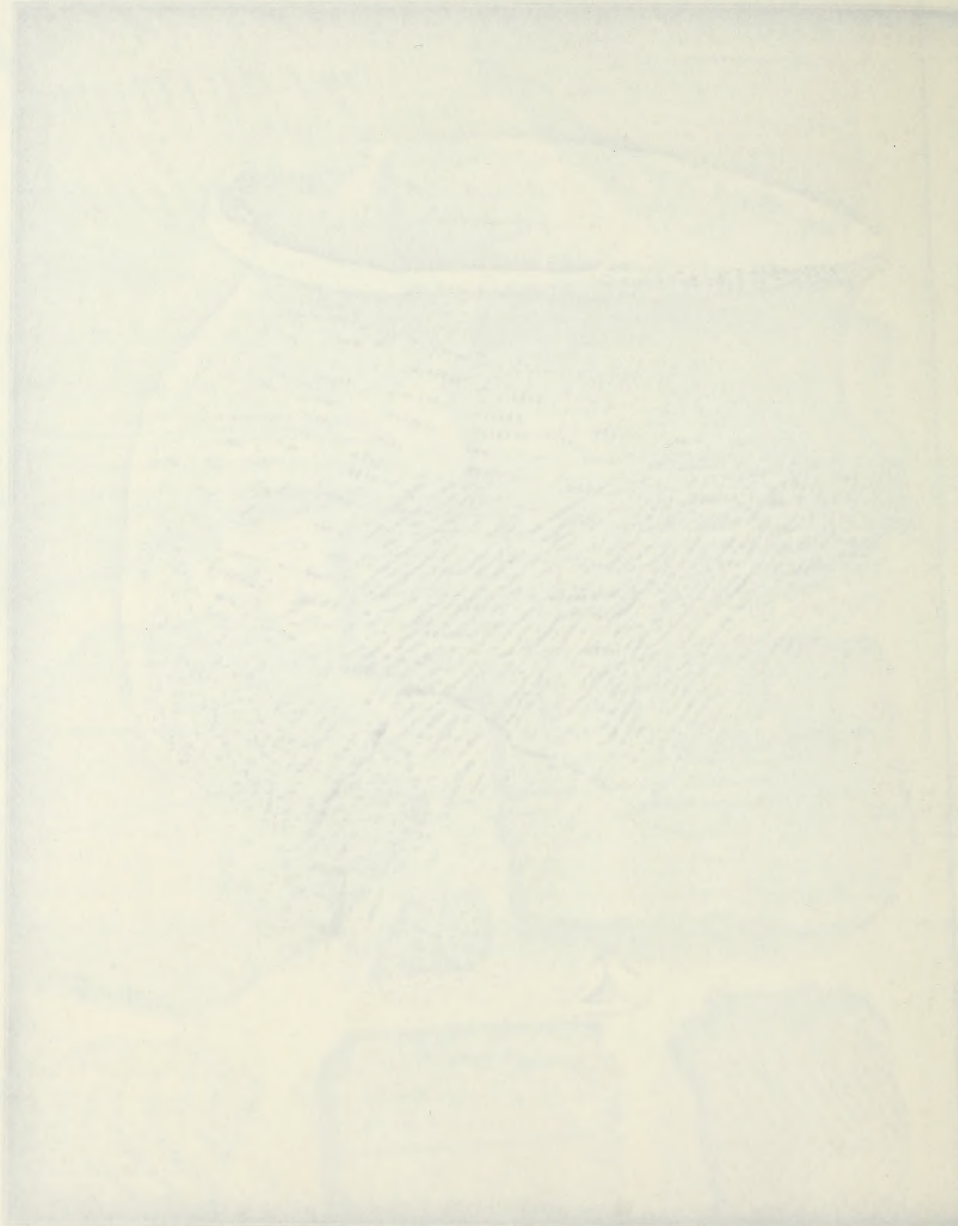


Plate No. 24. The H. K. DEISHER POT, Kutztown, Berks Co., Pa. 10½ inches high.
(Courtesy of Mr. Deisher.)



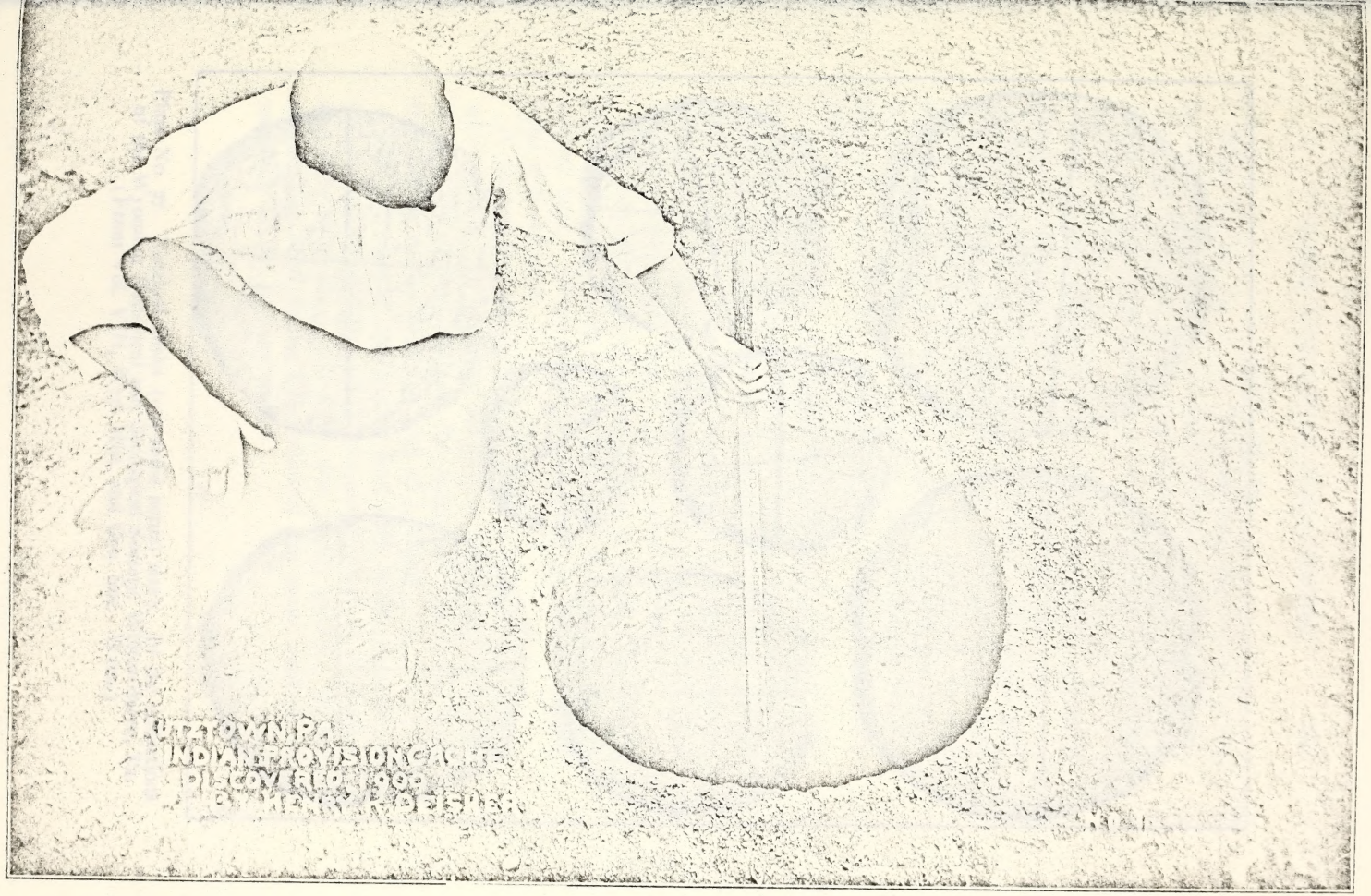


Plate No. 35.—Showing location of the Dorsum Penis Artery.



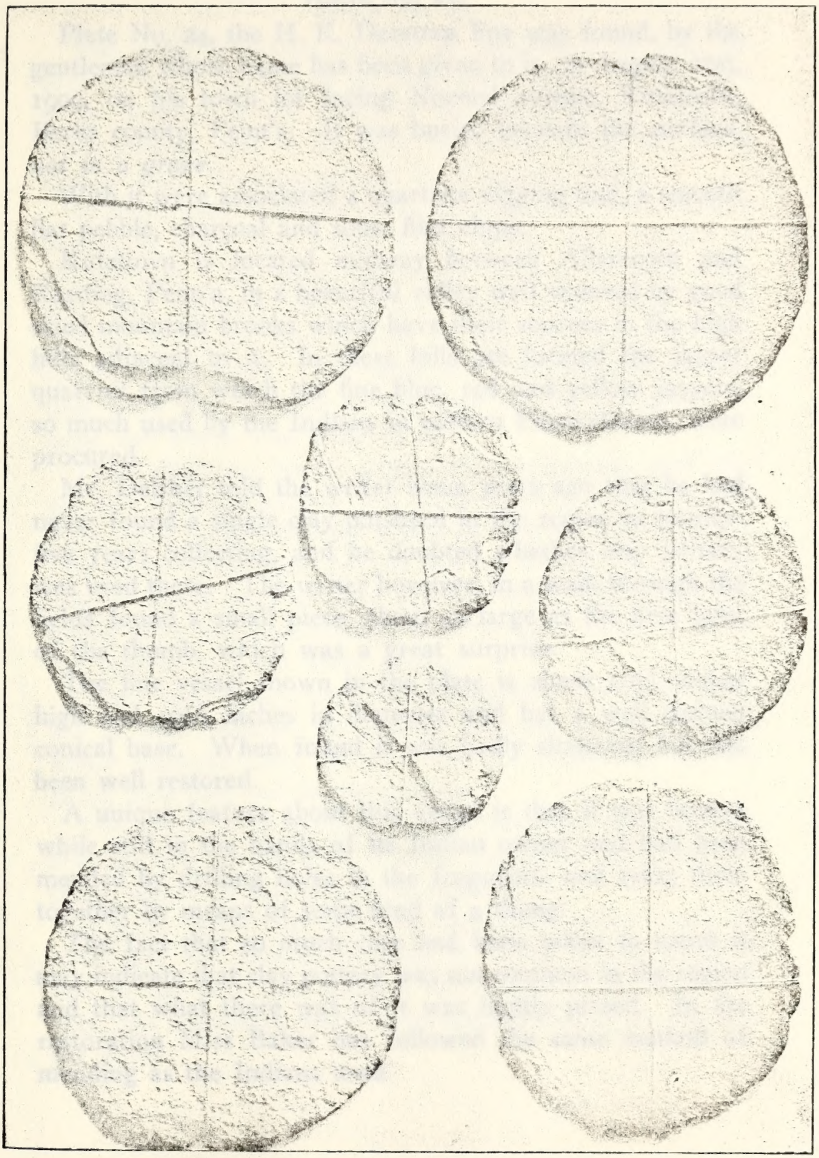


Plate No. 27. Notched Disks (one-third actual size). In the collections of the Wyoming Historical and Geological Society, Wilkes-Barre, Pa. (From Vol. VIII, Wyo. Hist. and Geo. Soc. Wren.)

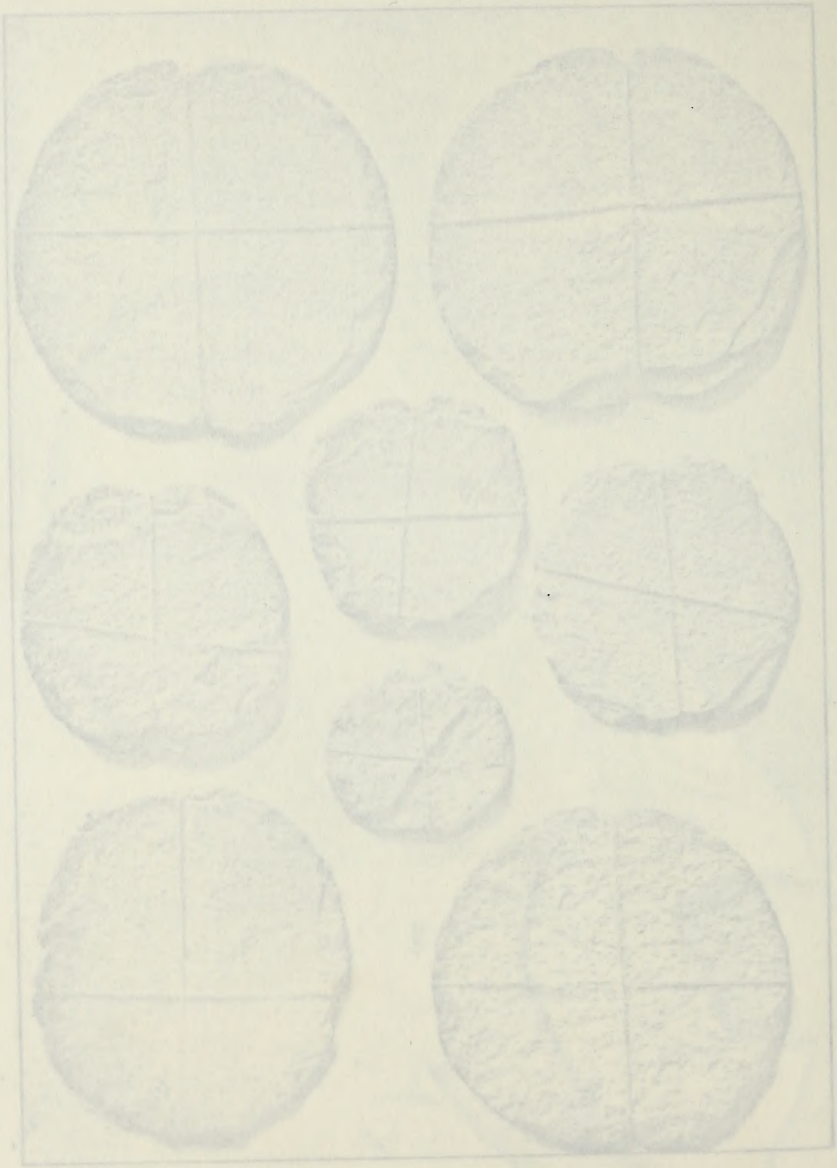


PLATE NO. 24.

Plate No. 24, the H. K. DEISHER POT was found, by the gentleman whose name has been given to it, on August 21st, 1909, on his town lot facing Normal avenue, Kutztown, Berks county, Penn'a. It was buried beneath the surface, *not in a grave.*

With it were associated a quartzite digging tool, a smooth flat pebble, charcoal and some flint chips.

Kutztown is located midway between Allentown and Reading, Penn'a, in a beautiful valley well watered by good sized mountain brooks which have their sources in the high hills adjacent to it. In these hills are located the jasper quarries from which the fine blue, red and yellow jaspers, so much used by the Indians in eastern Pennsylvania, were procured.

Mr. Deisher told the writer some years ago that he had never found a single clay potsherd in the region in twenty-five years collecting, and he doubted whether clay pottery was used there. The writer however, in a walk through the fields found a small piece, about as large as the first joint of the thumb, which was a great surprise.

The fine vessel shown in the plate is about 10½ inches high and 10½ inches in diameter and has a well defined conical base. When found it was badly shattered but has been well restored.

A unique feature about this vessel is that it was broken while still in the hands of its Indian owner and had been mended by drilling holes in the fragments and tying them together by means of some kind of a thong.

The fact that so much care had been taken to mend it may indicate that clay pottery was not common in the region and that what there was of it was highly prized. In the restoration Miss Baker has followed the same method of mending as the Indians used.

PLATE NO. 27.

This plate illustrates a type of implement or tool the uses of which are not as yet fully understood. They seem to be peculiar to the valley of the Susquehanna river in Pennsylvania, and to be most numerous along the north branch from Northumberland to Wyoming Valley.

In shape they resemble a flat plate and are made from a laminated stone, not water worn, which was adapted to the purpose. The edges are nicely chipped on both sides, and, like ordinary net sinkers, made from water worn pebbles, there are two notches on the outer edge directly opposite each other. The edges are worn smooth, showing that there was friction at that part of the implement in some use which was made of it.

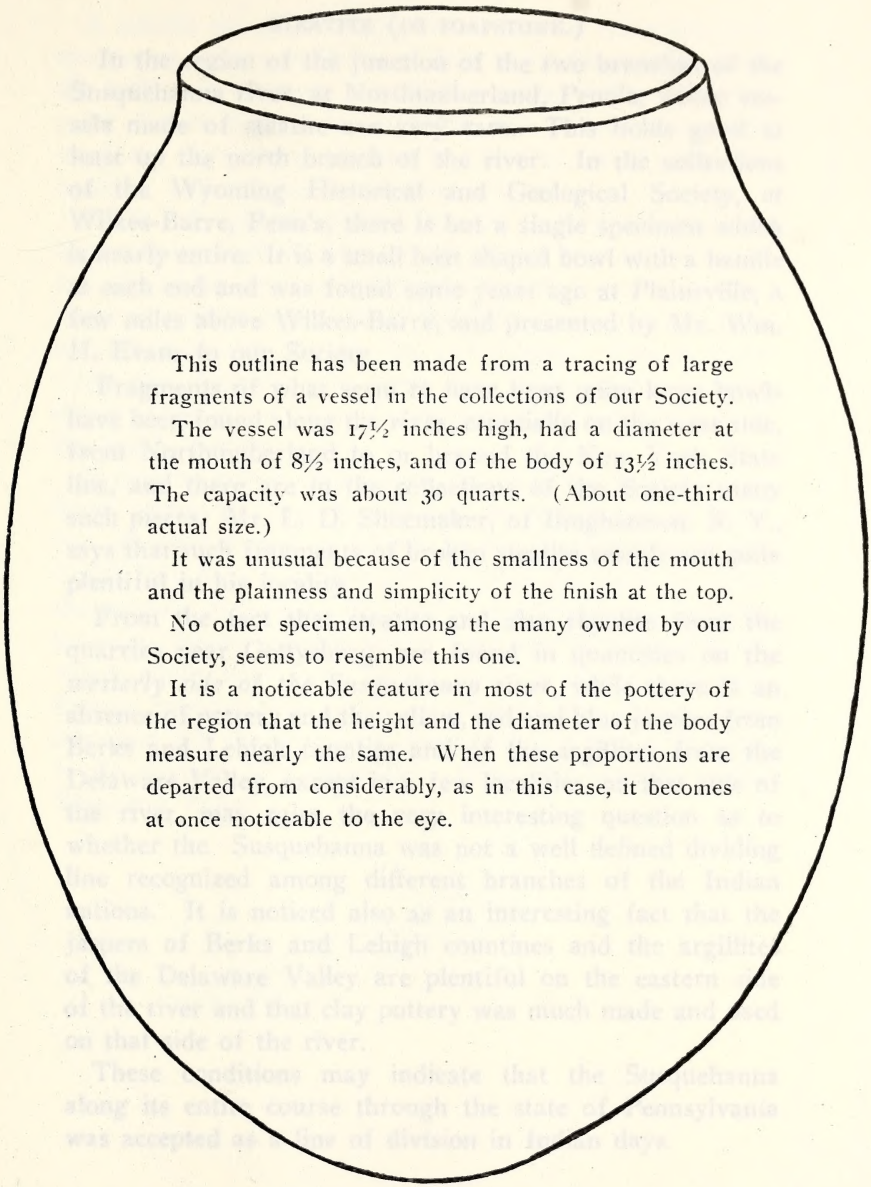
These disks are found scattered on camp sites and they are also found in caches of a dozen or two, indicating that there were times when the entire lot was all used together. The writer thinks that this use was net sinkers for the drag nets or seines used in shad fishing, which was much followed along the Suquehanna river in early times, both by the Indians and the white people.

Other uses which have been suggested for these disks are as hide fleshers, for scaling fish, pot covers and the writer suggests their use as a tool for smoothing out the inside of a clay pot in the making.

They seem to be associated with localities where pottery is found and are not seen at West Nanticoke and Hunlocks creek, where no clay pottery is found.

It is no doubt true that the American Indians used the same tool for several purposes to which it was adapted, and, as has been said under a description of the shapes of pots, this implement seems to be specially fitted for use as a pot cover.

208a



This outline has been made from a tracing of large fragments of a vessel in the collections of our Society.

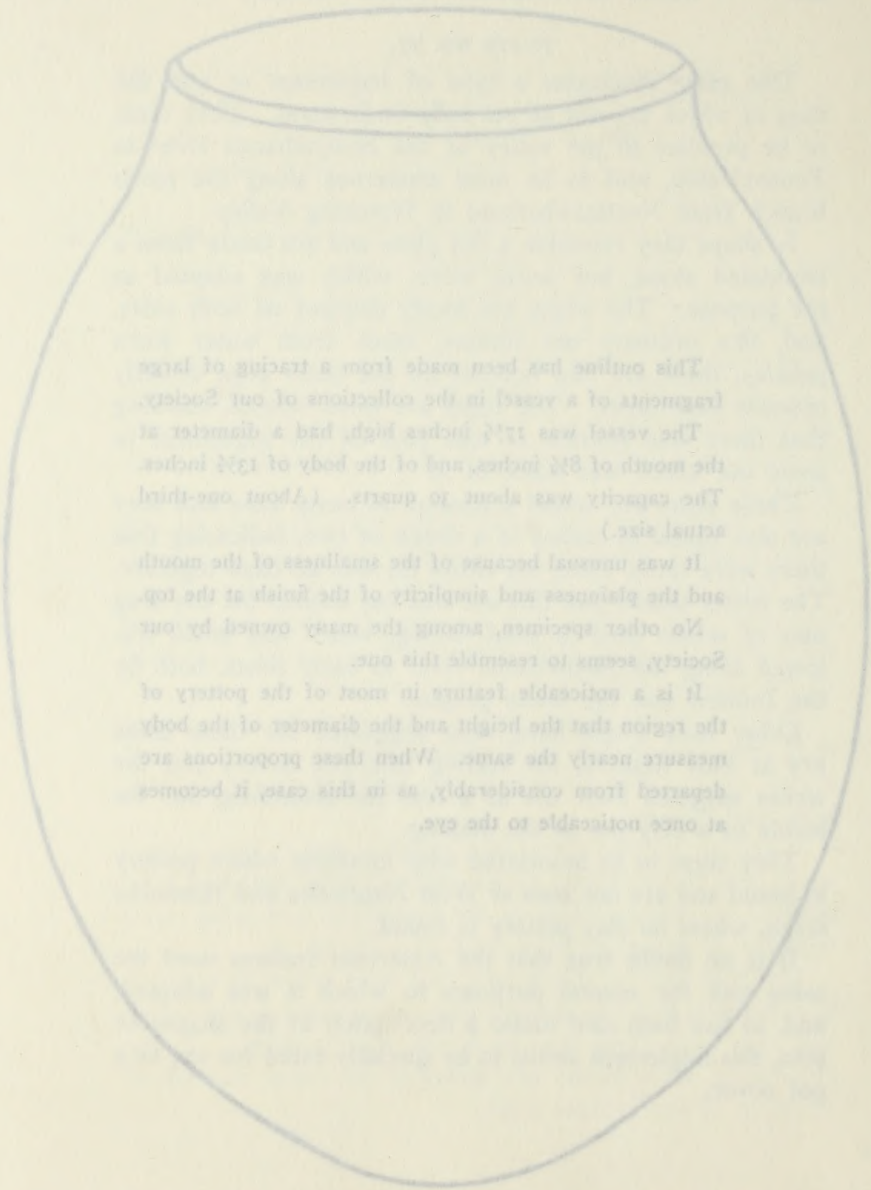
The vessel was 17½ inches high, had a diameter at the mouth of 8½ inches, and of the body of 13½ inches. The capacity was about 30 quarts. (About one-third actual size.)

It was unusual because of the smallness of the mouth and the plainness and simplicity of the finish at the top.

No other specimen, among the many owned by our Society, seems to resemble this one.

It is a noticeable feature in most of the pottery of the region that the height and the diameter of the body measure nearly the same. When these proportions are departed from considerably, as in this case, it becomes at once noticeable to the eye.

Plate No. 26. Fragments in Wyoming Historical and Geological Society, Wilkes-Barre, Pa.



STEATITE (OR SOAPSTONE.)

In the region of the junction of the two branches of the Susquehanna river, at Northumberland, Penn'a, whole vessels made of steatite are very rare. This holds good at least up the north branch of the river. In the collections of the Wyoming Historical and Geological Society, at Wilkes-Barre, Penn'a, there is but a single specimen which is nearly entire. It is a small boat shaped bowl with a handle at each end and was found some years ago at Plainsville, a few miles above Wilkes-Barre, and presented by Mr. Wm. H. Evans to our Society.

Fragments of what seem to have been quite large bowls have been found along the river, especially on the west side, from Northumberland to or beyond the New York State line, and there are in the collections of the Society many such pieces. Mr. L. D. Shoemaker, of Binghamton, N. Y., says that such fragments of broken steatite vessels are quite plentiful in his locality.

From the fact that steatite and also rhyolite from the quarries near Gettysburg, are found in quantities on the *westerly side of the Susquehanna river,* while there is an absence of pottery and the yellow, red and blue jaspers from Berks and Lehigh counties and of the argillites from the Delaware Valley, except in a few localities, on that side of the river, may raise the very interesting question as to whether the Susquehanna was not a well defined dividing line recognized among different branches of the Indian nations. It is noticed also as an interesting fact that the jaspers of Berks and Lehigh countines and the argillites of the Delaware Valley are plentiful on the eastern side of the river and that clay pottery was much made and used on that side of the river.

These conditions may indicate that the Susquehanna along its entire course through the state of Pennsylvania was accepted as a line of division in Indian days.

A notable exception in the distribution of materials, just mentioned, occurs at Shawnee flats, about three miles from the lower, or western, end of Wyoming Valley. At this point eastern jaspers are plentiful, fine pottery was much used, the Gettysburg rhyolite is plentiful, in at least one location, and steatite is sometimes found.

While it is well known that fine clay pottery was made by the southern Indians, who on this theory kept on the western side of the river, may it not be that they exercised their claim to certain rights along the Susquehanna river, only by periodical visits for hunting and fishing? That in those visits they brought with them only their steatite vessels, which would stand risks of transportation much better than the fragile pottery ware?

It may be only a coincidence, but both the large steatite bowls shown in Plate No. 12 and the one shown in Plate No. 28 were found on islands in the Susquehanna river. Could they have been brought up from the south to serve the purpose of cooking the food at conferences or councils between adverse interests which were held on these islands, which might have been looked upon as neutral ground? Future investigations may corroborate the theory here advanced that the river was recognized as a line of division in the manner here suggested. (See also remarks under Wyoming Valley.)

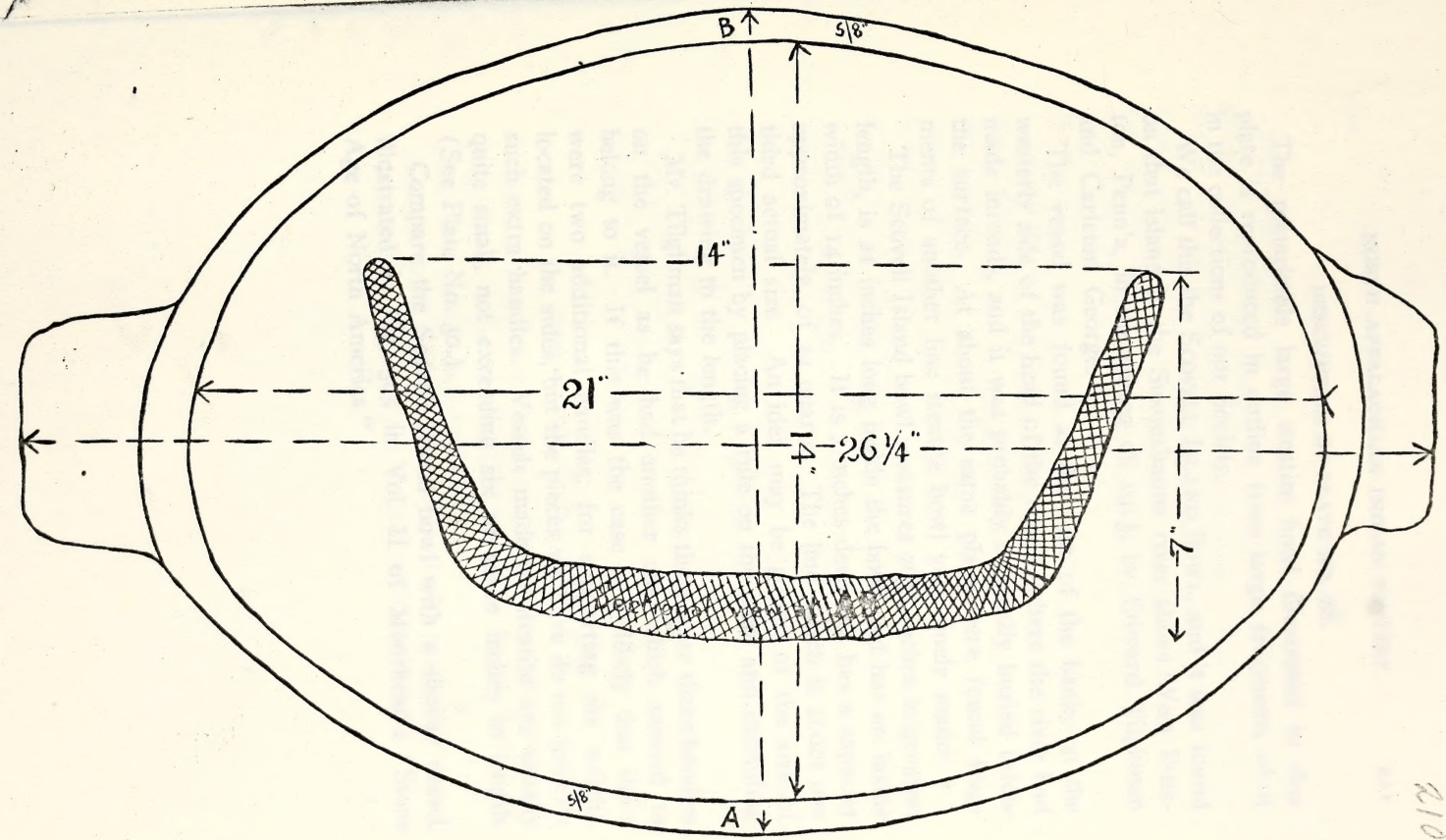


Plate No. 28. The Scovell Island Steatite Bowl (restored). In the collections of The Wyoming Historical and Geological Society, Wilkes-Barre, Pa. (About one-third actual size.)

("Scovell Island" was known to the Indians as Lackawannock Island. The "Scovell Island Bowl", having been found by Messrs. Tilghman and George, as described, they desire that it be known as the Tilghman-George Bowl in the Collections of our Society.)

Fig. 96 & 96a. The Soccer Jersey was greatly modified (1930s-1940s) in the direction of the Rugby jersey. Geoffrey Sowerby's "Rugger" of 1927 (Plate 96) was one of the most influential. (Note the multi-striped collar.)

DESCRIPTION OF PLATE NO. 28.

The remarkable large steatite bowl illustrated in this plate is reproduced in outline from large fragments of it in the collections of our Society.

We call this the SCOVELL ISLAND BOWL, and it was found on that island in the Susquehanna river above West Pittston, Penn'a, in the spring of 1913, by Edward Tilghman and Carleton George.

The vessel was found at the foot of the bank, on the westerly side of the head of the island, where the river had made inroads, and it was probably originally buried below the surface. At about the same place were found fragments of another fine steatite bowl very finely made.

The Scovell Island bowl measures 26¼ inches in greatest length, is 21 inches long inside the bowl and has an inside width of 14 inches. It is 7 inches deep and has a capacity approximately, of 24 quarts. The line sketch is about one third actual size. An idea may be gotten of the size of this specimen by placing a rule on the plate and extending the drawing to the length.

Mr. Tilghman says that he thinks there were three handles on the vessel as he had another one which seemed to belong to it. If this was the case it is likely that there were two additional handles, for supporting the weight, located on the sides, but the pieces we have do not indicate such extra handles. Vessels made of steatite are usually quite small, not exceeding six or seven inches in length. (See Plate No. 30.)

Compare the Scovell Island bowl with a similar vessel, illustrated as Fig. 505 in Vol. II of Moorhead's "Stone Age of North America."

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The Scovell Island bowl measures 26½ inches in greatest length, is 21 inches long inside the bowl and has an inside width of 14 inches. It is 7 inches deep and has a capacity approximately, of 24 quarts. The line sketch is about one third actual size. An idea may be gotten of the size of this specimen by placing a rule on the plate and extending the drawing to the length.

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Compare the Scovell Island bowl with a similar vessel, illustrated as Fig. 505 in Vol. II of Moorhead's "Stone Age of North America."

DESCRIPTION OF PLATE NO. 29.

This plate illustrates the steatite quarry at Clifton, Va., and shows how the vessels were very largely worked out before they were detached from the ledge. They were thus firmly held in place while the workman was cutting away the surplus material. A detailed description is given of this quarry by Wm. H. Holmes in the 15th An. Rep. of the B. A. Eth.

This quarry, located near Clifton, Fairfax county, Virginia, was discovered in 1893 and was uncovered, under the supervision of the National Museum, the next year. The main trench which the aborigines had sunk in the steatite ledge was 25 feet wide, 16 feet deep, and it had been driven forward into the hillside about 65 feet. "Almost the entire excavation had been carried out of the solid steatite by means of stone picks and chisels, and all the evidences of the cutting and sculpturing—even the whitened surface of the tool marks—were as fresh as if the work of yesterday."

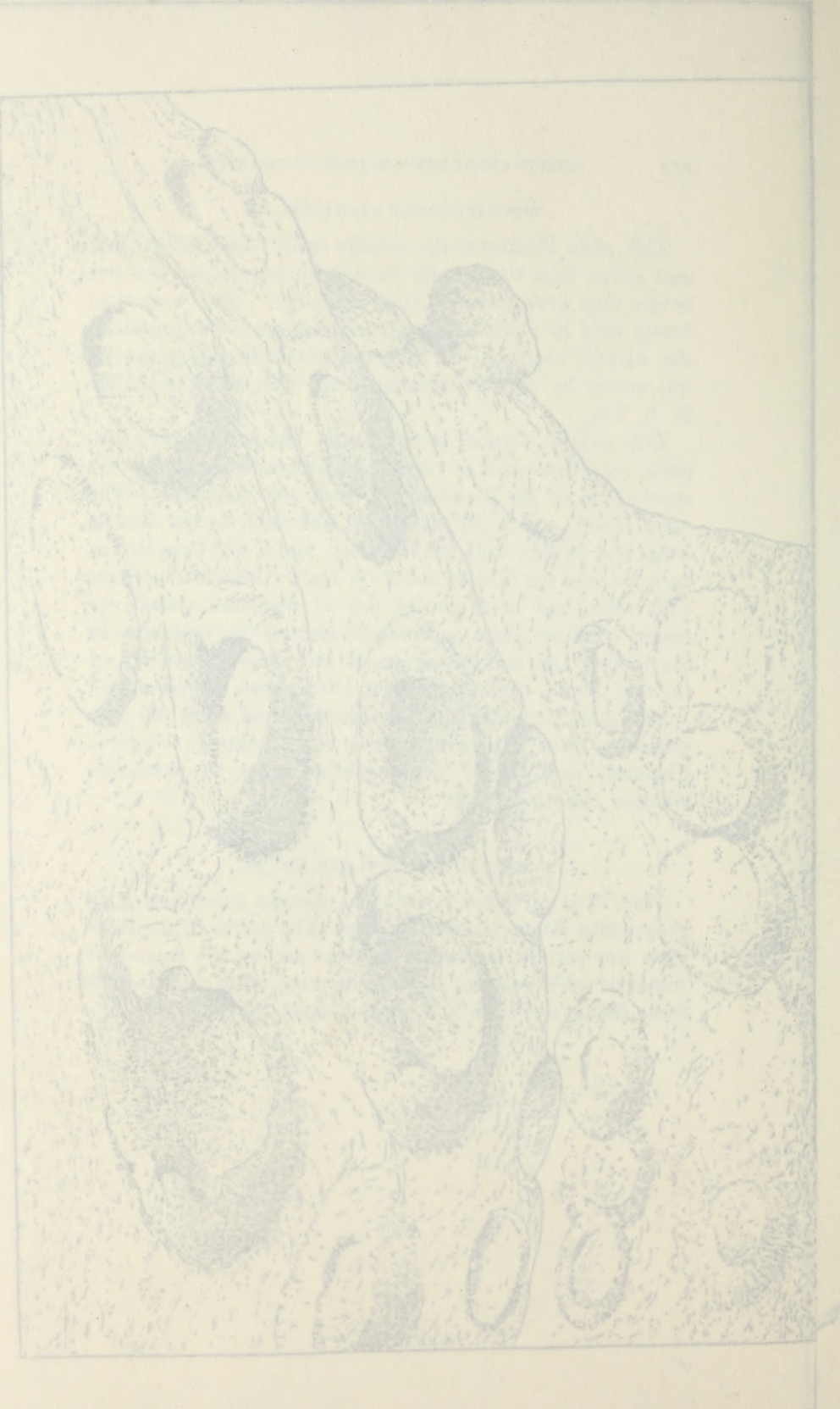
It is quite probable that the steatite found along the Susquehanna river was brought from this locality in Virginia. Chemical analysis of the material ought to determine whether this is correct.

DESCRIPTION OF PLATE NO. 30.

Plate No. 30 shows a series of steatite stone vessels in progressive stages of manufacture. The marks of the stone tools are plainly indicated, as they are on all fragments found of such vessels. (Compare these small vessels with those shown in Plates Nos. 12 and 28 of this paper.)



Plate No. 29. View of Steatite Quarry, Clifton, Va., copied from Plate No. LXXVI, 15th An. Rep. B. of A. Eth.



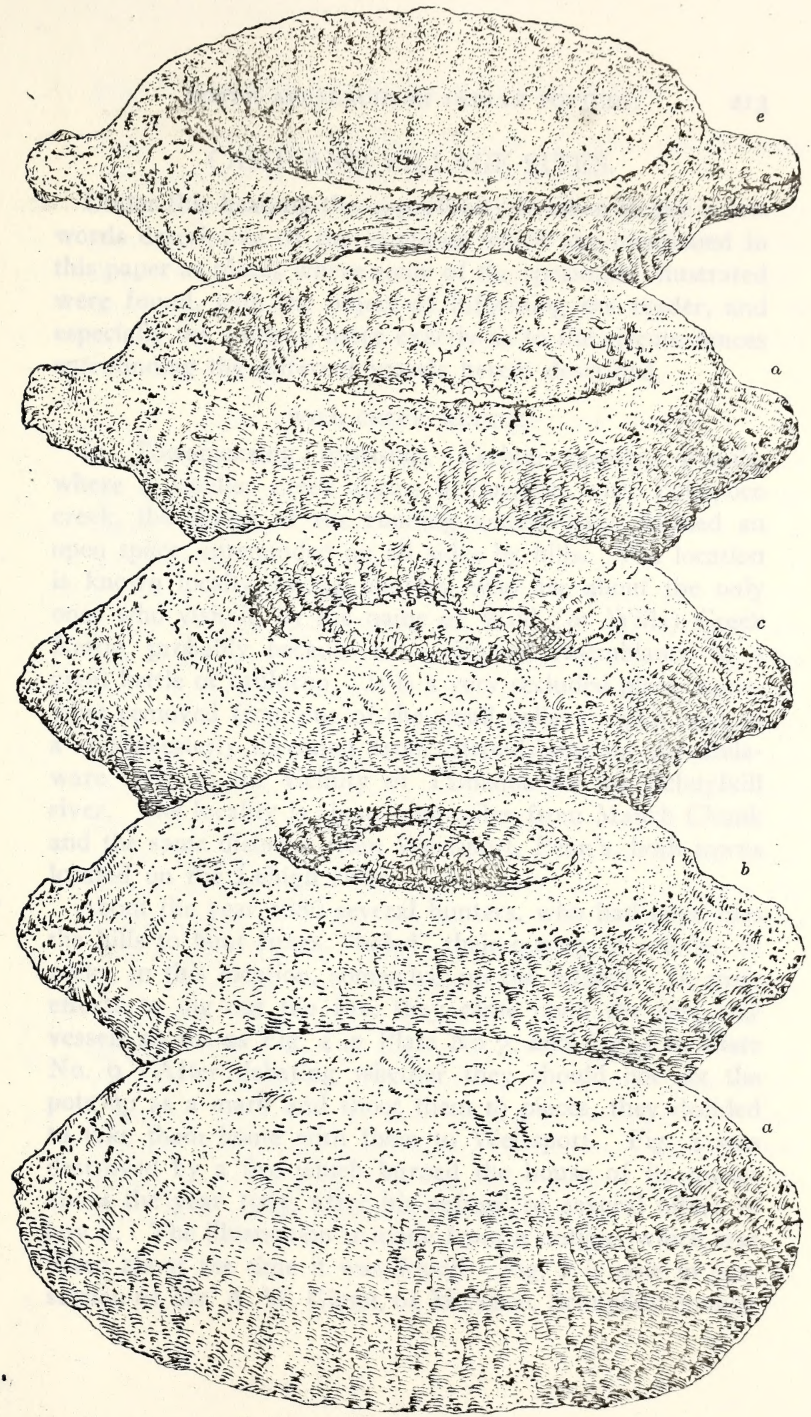
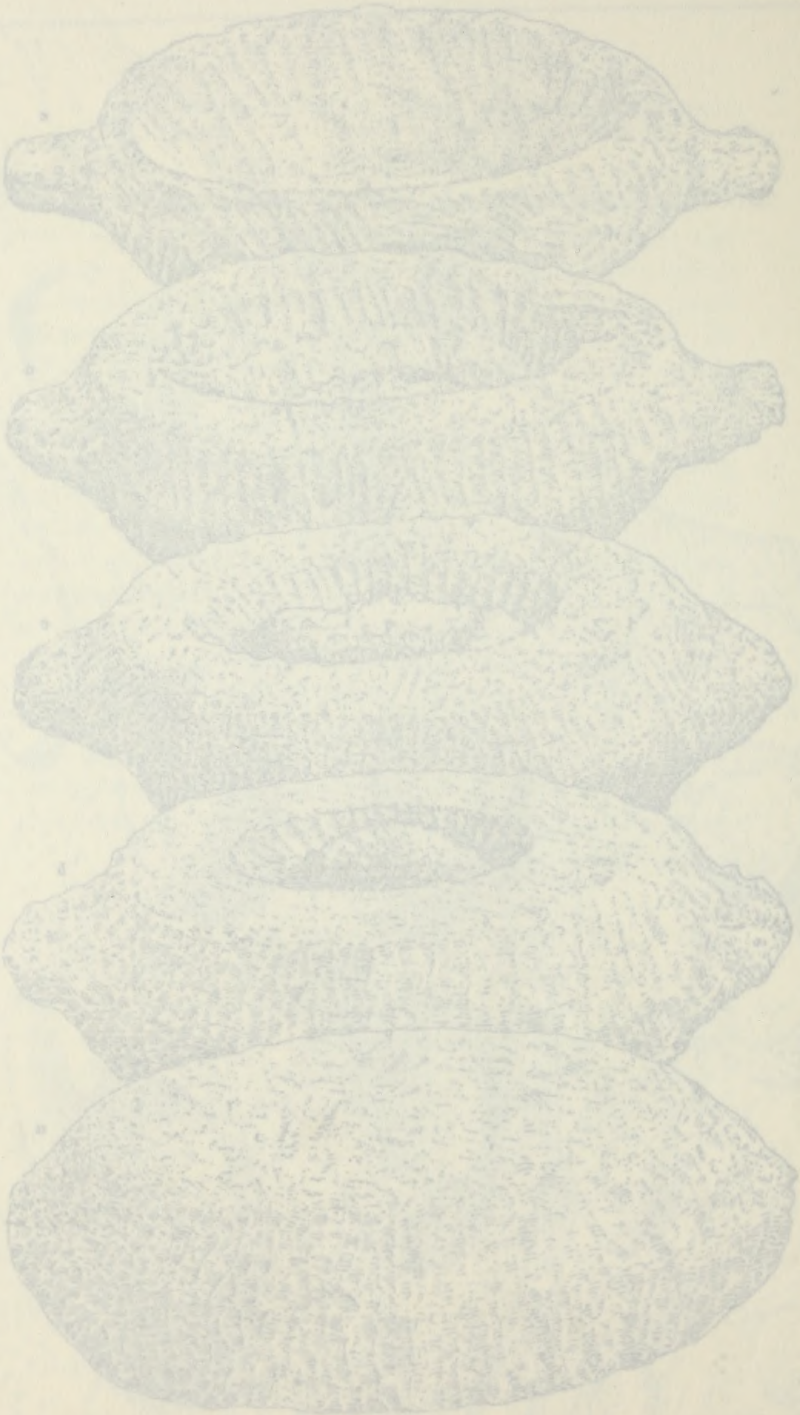


Plate No. 30. Steatite vessel in process of making (about one-third actual size). Copied from Plate No. LXXVIII, 15th An. Rep. B. of A. Eth., William H. Holmes. (Courtesy of U. S. National Museum, Washington, D. C.)



CAMP AND VILLAGE SITES.

Under this heading the opportunity is taken to say a few words descriptive of the locations which are mentioned in this paper as places where some of the specimens illustrated were found, with the object of informing the reader, and especially the student, more exactly as to the circumstances surrounding the different vessels herein described.

WILD CREEK KETTLE.

In Towamensing township, Carbon county, Penn'a, where a smaller creek forms a junction with Pohopoco creek, the action of the running waters have formed an open space, surrounded on all sides by hills. The location is known locally among hunters, who are about the only ones who visit it, by the name of Wild (or Wills) Creek Kettle, probably because of a fancied resemblance to a great kettle or cauldron. It is a very secluded place, somewhat removed from one of the small valleys which runs in a southwesterly direction from Stroudsburg on the Delaware river to the vicinity of Tamaqua on the Schuylkill river. The locality is about nine miles from Mauch Chunk and the same distance from Weissport, Penn'a, both towns located on the Lehigh river.

About the year 1886 several hunters, who had gone into the hills to hunt foxes, "holed" their quarry in a ledge of rocks, in this location, somewhat up the hillside. In their efforts to dig out the fox, they came upon the two clay vessels shown as Fig. 4 in Plate No 7, and Fig. 1 in Plate No. 9. After debating whether they should not set the pots up as a mark and shoot them to pieces, they decided to take them home with them to Weissport. Fig. 4 was destroyed by a fire which burned the house of its owner about the year 1905, after his refusal of several offers to buy it. The illustration is made from a tintype, which was taken about the time it was found. Fig. 7 is now in possession of Mr. A. W. Gimbi, of McAdoo, Schuylkill county,

Penn'a. The photographs of both of these vessels were furnished by Mr. Gimbi to be illustrated.

Mr. Gimbi and a man named Whitaker visited the location a number of years ago and, by passing the earth on the floor of the "kettle" through a sieve, secured some triangular arrow points, a few other impletments and a number of potsherds, some of which are shown in Plate No. 20 under "Carbon county."

WEST NANTICOKE AND HUNLOCKS CREEK.

At West Nanticoke, in the extreme western end of Wyoming Valley proper, where the river passes out of the valley by going directly through the mountain, there is a narrow plateau on the river bank, above the mouth of Harveys creek. There is very much evidence of the occupancy of this location by the Indians. Fire stones are seen in wagon loads and great quantities of the gray rhyolite from Gettysburg, both in flakes and finished implements, have been found here. The location is mentioned here because of the extreme scarcity of clay pottery noticed and also because soapstone was quite plentiful, as has been mentioned elsewhere in this paper. The ground has been so much hunted over since the freshets in 1902 and 1904, which cut away the soil down to the level at which the Indians lived on it, that but few finished artifacts are to be now found. Rhyolite chips are still plentiful.

At Hunlocks creek, located about two miles down the river from West Nanticoke there is also this entire absence of clay pottery, while fragments of soapstone vessels are frequently found and flakes of rhyolite and finished implements of that material have been very abundant. A trail running north and south seems to have crossed the river at this point, passing into the back country to the northward through the notch in the mountains.

THE NANTICOKE FLATS.

The Nanticoke flats are on the southerly side of the Susquehanna river at the westerly end of Wyoming Valley, and occupy the low lying lands between the town of Nanticoke and the river.

The land is among the best farming land in the valley and produces fine crops every year. They run along the river for a distance of about a mile and a half.

Because the surface at this point is somewhat higher than in many other parts of the valley, the freshets in the Susquehanna have not disturbed the surface soil as much as elsewhere. For this reason the evidences of Indian occupancy have not been laid bare to as great an extent as at some other points.

After the great flood of 1902, however, when the river rose about thirty-two feet above low water mark, the writer found the locations of several camp or village sites, and secured specimens of clay pottery, indicating that pottery was used on this side of the river, which seems not to have been the case nearly directly across on the other side, as has been already mentioned.

The "flats" got their name from the Nanticoke tribe of Indians, which had come up from the eastern shore of Maryland, and lived here for a time. They afterwards moved further north into the province of Ontario, Canada, where they are now living.

Because of inability just at this time to identify specimens of pottery from this location they are not illustrated in this paper.

THE DUNDEE FARM.

The Dundee farm is an arbitrary name given, by the writer, to the lands lying somewhat back from the river, and just eastward of the Nanticoke flats, on the western bank of a small stream which empties into the river at this point. The early name given to this location together with

other lands which adjoin it on the east, was, I believe, the "upper flats."

The surface of the Dundee farm is about thirty feet higher than the Nanticoke flats, and it was an ideal place for an Indian village.

The artifacts found at this place, including the pottery which was very plentiful, are of superior workmanship and finish. The village seems to have been a well established one from numerous specimens found there. Oscar J. Harvey, Esq., tells the wrtier that the Wanamie tribe of Delaware Indians occupied this site.

The clay pottery from Shawnee flats and Dundee farm seems to be the best in the Wyoming Valley, so far as they have come under observation.

This site will doubtless soon disappear, as the Delaware, Lackawanna & Western Coal Company has sunk a mining shaft 1,600 feet deep on this farm, and the debris from mining operations will soon cover the surface.

THE SHAWNEE FLATS.

Shawnee Flats, where many of the specimens of pottery which are illustrated in this paper were found, is on the northerly side of the Susquehanna river and in the westerly part of Wyoming Valley, Penn'a.

In the early settlement of the valley by the whites, it was a place of special importance, as the "flats," about one half miles wide and three miles long, contained some of the very best farming lands in Wyoming Valley, and all the people depended on farming for a subsistence.

The Indians too had appreciated the good qualities of the land for planting their crops; the river too bounding the flats on the south was well stocked with fish while the adjacent hills were fine hunting grounds.

The writer has located at least three village sites of considerable extent on this ground, which must have been much occupied, judging from the number of implements which have been secured there.

The Shawnee Indians who were ordered to remove to Wyoming, by the Iroquois, about the year 1728, located on these flat lands.

About the year 1701, two branches of the Shawnee removed from Lancaster county, Penn'a, one coming into Wyoming Valley, the other locating at Pechoquelin, on the Delaware river in New Jersey, (below Durham Iron Works). When the Shawnees of New Jersey were ordered to remove to Wyoming, as has been mentioned, they became united again with their people who had come up from Lancaster county in the year 1701. It is understood that their village was located on the Shawnee flats, and the site is still pointed out.

A description of some features of this locality is given in connection with Plate No. 3.

THE BUTTONWOOD FLATS.

What the writer has called the Buttonwood flats is on the southerly side of the Susquehanna river in Wyoming Valley, directly opposite Plymouth, Penn'a. The floor of the valley at this point is considerably higher than in most parts of the valley. At one point, which is not known to have been covered by any freshet, since the white people came into the valley, there was a much occupied Indian village, perhaps several, at different times.

Pottery was very much made and used by the people who lived here and a number of specimens are illustrated in Plate No. 22.

From the many pieces and whole implements made of yellow and red jasper from the Berks and Lehigh county quarries, it is plain that the people who occupied this site were well acquainted with that region, and either came from there or paid periodical visits to it to secure the material from which to make their arrow and spear points. Argillite from the Delaware river valley competes in plentifulness with these jaspers as to which is in the majority.

At one point, within an area of about a yard square, the writer picked up about a pint of red and yellow jasper chips from the secondary flaking, and he thought he had located the tent of the arrow point maker.

Many of the artifacts found here seem also to resemble those of the Iroquois of New York. The rhyolites from west of Gettysburg are almost entirely absent from this location.

As this paper is devoted to Indian pottery, no further comment is made on the materials found from different localities, a subject which offers abundant material for a paper in itself.

THE WILKES-BARRE FLATS.

About half a mile down the river from West River street, Wilkes-Barre, Penn'a, the river makes an abrupt bend to the westward. Right at this point there was an Indian village which extended some distance up and down stream. Some fine specimens of clay pottery have been found at this point after freshets in the river. The finest large fragment, now in the collections of our Society, was found here and is illustrated separately in Plate No. 16, and described in that connection.

It was at a point on the river bank near West River street that the noted Delaware chief Teedyuscung had his tent when living in the valley. It was there that he was burned to death in a fire which was supposed to have been started by some of his enemies, while he was under the influence of liquor, in the year 1763.

Many fine specimens of Indian artifacts have been secured on Wilkes-Barre flats in years past, but they seem to be scarce in these later years.

DORRANCETON FLATS.

Along the northerly bank of the Susquehanna river from Pierce street in Dorrancetown, Penn'a, to the bend of the river at Forty Fort the ground was occupied by Indian villages or camp sites. Especially the upper part of this

location was so occupied, as the evidences of the fires are plainly to be seen.

Pottery was used at this point, but the specimens secured by the writer do not show the same skillful or careful workmanship that is seen at some other places.

Yellow and red jasper arrow points of superior quality have been found on the Dorranceton flats some of which are in the collections of our Society.

THE WYOMING FLATS.

The Wyoming flats extend along the northerly bank of the river from Abrahams creek directly in rear of Forty Fort cemetery, up stream to the western end of Wyoming borough, a distance of somewhat more than a mile. On all this ground there are signs of Indian occupancy, but the writer has located only two points at which there seems to have been the concentration of a camp or village.

One of them is on what was until recently known as the Brodhead farm, directly toward the river from where Abrahams creek crosses Wyoming avenue. It was at this place that some of the specimens shown in Plate No. 18 were secured from Mr. John Sutter in 1913. The other site is farther up stream on what is known as the Thomas P. Hunt farm, about three hundred yards southward from the Wyoming monument. The people occupying this site made excellent pottery perhaps better than is found at most places in the valley. This farm has been occupied by Mr. T. H. Rinker for many years.

The Rev. Thomas P. Hunt was a Presbyterian minister, of well known characteristics to people living in the valley about forty years ago. He was an ardent advocate of temperance, and the writer remembers a visit of "Pappy Hunt" to the Presbyterian Sabbath school of which he was a membor forty or more years ago. He gave a talk on temperance to the children, and one boy, at least, has a clear recollection

of a simple verse of rhyme which the reverend gentleman had the scholars repeat several times.

"I do not think I'll ever drink,
Whiskey or gin, brandy or rum,
Or anything that will make drunk come."

Some of the fragments of pottery collected on this farm are illustrated, in Plate No. 17.

OTHER CAMP AND VILLAGE SITES.

This paper being devoted to a description of clay pottery, no attention is given at this time to village and camp sites up and down the Susquehanna river from which no specimens of pottery are illustrated.

TENTATIVE CONCLUSIONS:

In an effort to suggest something definite about the eastern Indians, as an outgrowth of this paper, the following propositions are submitted:

1st. That the whole vessels illustrated in this paper indicate that most of the pottery of the region was made by people having different conceptions of form and decoration from the makers of the typical pottery wares of central New York.

2nd. That the indulgence in smoking was not a daily or common practice among the Indians of the region, and may always have had some special or ceremonial importance attached to it.

3rd. That the region was frequently visited by peoples living as far south as the state of Virginia, who left many signs of such visits behind them.

4th. That the finding of clay pottery and steatite on opposite sides of the Susquehanna river may indicate that the river was a well defined dividing line between different divisions of the aborigines, and that crossing from one side of the river to the other was not a common practice in "Indian days."

5th. That the direct influence of the Iroquois or New York Indians predominated at least as far south as Athens, Bradford county, Penn'a, and that it is more noticeable north and west of Muncy, Penn'a, and at Northumberland, where the two branches of the Susquehanna come together, than it is at other points in the field covered by this paper.

A WORD IN CLOSING.

The opportunity is here taken to return thanks for the universal courtesy and kindness that have been extended to the writer from every place in which he has sought for assistance. Without this help it would not have been possible to make such an exhibit of the pottery wares of the North Appalachian region as is here given. The works of other writers on Indian pottery have been freely consulted in the preparation of this paper, and the effort and intention has been to give due credit in all cases; if there has been any omission to do this it has been an unintentional oversight.

To the reader it may be said that together we have hunted the fields, dug in the earth, visited caves in the rocks, climbed mountains and crossed rivers and valleys to find our game, and we must now part.

In the final analysis the writer feels that the illustrations *of the things themselves,* speak far more forcibly than anything which he has been able to say. That, through their handiwork, these people still speak to us across the years which have passed since they lived; and that it is true, as was said at another time and in a different sense:

"By their works ye shall know them."

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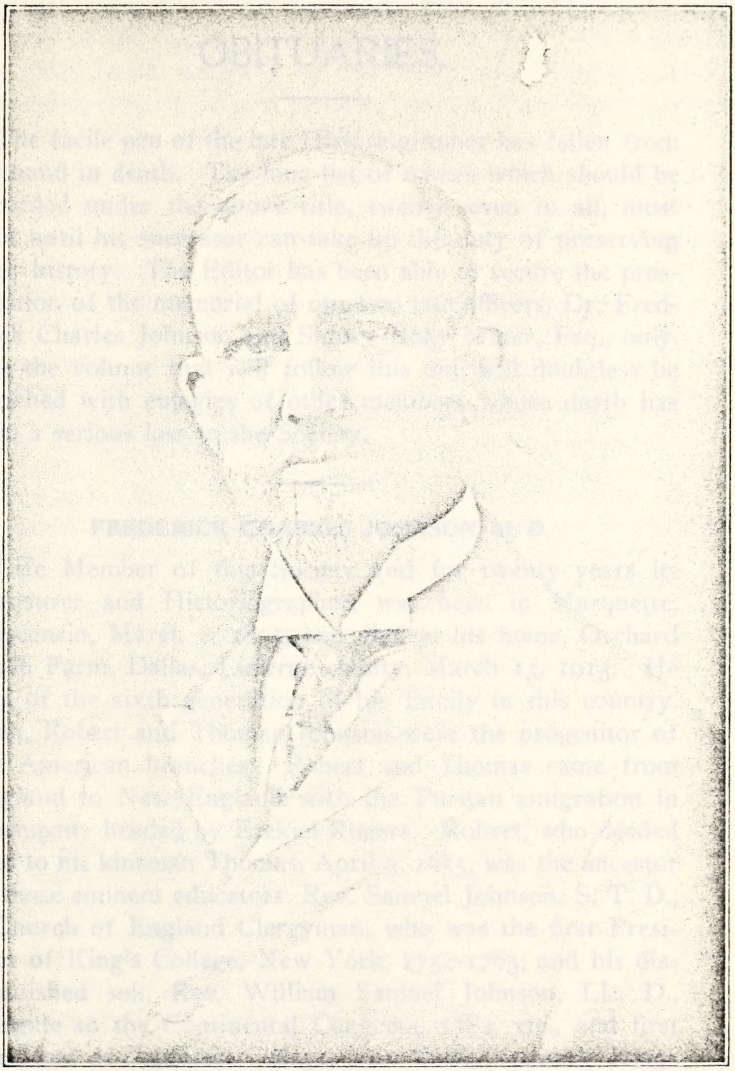
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FREDERICK CHARLES JOHNSON, M. D.



FREDERICK CHARLES JOHNSON, M. D.

OBITUARIES.

The facile pen of the late Historiographer has fallen from his hand in death. The long list of names which should be recorded under the above title, twenty-seven in all, must wait until his successor can take up the duty of preserving their history. The Editor has been able to secure the presentation of the memorial of our two late officers, Dr. Frederick Charles Johnson and Sidney Roby Miner, Esq., only. But the volume that will follow this one will doubtless be enriched with eulogies of other members whose death has been a serious loss to the Society.

FREDERICK CHARLES JOHNSON, M. D.

Life Member of this Society and for twenty years its Treasurer and Historiographer, was born in Marquette, Wisconsin, March 2, 1855, and died at his home, Orchard Knob Farm, Dallas, Luzerne county, March 13, 1913. He was of the sixth generation of his family in this country. John, Robert and Thomas Johnson were the progenitor of the American branches. Robert and Thomas came from England to New England with the Puritan emigration in a company headed by Ezekiel Rogers. Robert, who deeded land to his kinsman Thomas, April 3, 1655, was the ancestor of those eminent educators, Rev. Samuel Johnson, S. T. D., a Church of England Clergyman, who was the first President of King's College, New York, 1754-1763, and his distinguished son, Rev. William Samuel Johnson, LL. D., delegate to the Continental Congress, 1784, etc., and first President of Columbia College, New York (formerly Kings College) 1792-1800.

OBITUARIES.

William Johnson, son of Thomas, from England about 1660, settled at New Haven, Connecticut, and ten years later became one of the proprietors of Wallingford and one of the signers of the compact of 1670. He married, 1664, Sarah, daughter of John and Jane (Woolen) Hall, and died 1716, his will being recorded in New Haven. They had thirteen children, of whom

Sergeant Jacob Johnson, born September 25, 1674, and died July 17, 1749, was the sixth. He married, December 14, 1693, Abigail Hitchcock, and left ten children, of whom the youngest

"Rev. Jacob Johnson was born in Wallingford, April 15, 1713, and died March 15, 1797, in Wilkes-Barre, Pennsylvania. His record of public service was notable. He was a sergeant in the Wallingford Train Band; deputy in the general court, 1732-'33-'36; graduate of Yale; pastor of Congregational Church, Groton, Conn., 1749-1772; first pastor Wilkes-Barre Congregational (afterward Presbyterian) Church, 1772-1797. He made missionary excursions to the Six Nations and preached to the Indians in their own tongue. He wrote the articles of capitulation following the destruction of the Wyoming Valley settlements by the British and Indians July 4, 1778, and was a sturdy and self-sacrificing defender of the Connecticut title throughout the protracted land contest in the Wyoming Valley. Several years before the revolution, at a public banquet during the treaty conference, he was called upon for an address, and made this prophetic response, matching the spirit of the famous words of Patrick Henry in Virginia: "I drink to the health of George III of Great Britain, comprehending New England and all the British Colonies in North America, and I mean to drink such a health as long as his royal majesty shall govern the British and American subjects according to the great charter of English Liberty, and so long as he hears the prayers of his American subjects. But in case his British Majesty (which God in great mercy prevent) should proceed contrary to charter rights and privileges, and govern us with a rod of iron and the mouth of cannons, then I should consider it my indispensable duty to join my countrymen in forming a new empire in America." Rev. Jacob Johnson

married at North Groton, Conn., Mary, a daughter of Captain Nathaniel and Mary (Williams) Giddings, of Preston, and they had a number of children. He was an extensive land and slave owner, and as attested by the foregoing, was a man prominent in large affairs.

"Jehoida Pitt Johnson, b. Conn., 1767, d. 1830, the son of Rev. Jacob Johnson, espoused the Connecticut side in the Yankee-Pennamite struggle. He, with one hundred others, was arrested in Wilkes-Barre by the Pennamites on the charge of "treason" and sent to jail. He had a large part in the public affairs of the community—Wilkes-Barre. He married, January 18, 1804, Hannah Frazer. Her father, Robert Frazer, served with the British against the French (before the American Revolution), was wounded at Quebec, where he was a sergeant under Wolfe. He enlisted in Lieut. Obadiah Gore's Company, Third Regiment, Conn. Line, 1777.

Wesley Johnson, b. December 20, 1819, d. October 27, 1892, son of Jehoida P. and Hannah (Frazer) Johnson, was educated for the law and had attained distinction in practice, when he abandoned it for a more peaceful mode of life than that of continual litigation. He was one of the originators of and leaders in the Wyoming Centennial celebration of 1878, was secretary of the Wyoming Commemorative Association from its inception to the day of his death, and the "Memorial Volume," compiled by him, is one of the standard works among the annals of Wyoming. He married (first) May 12, 1852, Cynthia Henrietta, daughter of David Sands and Mary (Tuttle) Green, and (second) 1856, Frances Wilson, widow of Frederick McAlpin.

"Dr. Frederick Charles Johnson, son of Wesley and Cynthia Henrietta (Green) Johnson, secured his early education in the public schools of Wilkes-Barre, and on returning to his native State, Wisconsin, he took a partial course in Ripon College, 1873. Returning to Wilkes-Barre in 1871, he had ten years of business training, during which time he developed his taste for newspaper work, contributing to the local papers, and undertaking special correspondence from the coal regions for the Chicago Tribune. One of these years he spent in Chicago on the Tribune staff.

"He graduated with the degree Doctor of Medicine from the University of Pennsylvania, 1883, and following graduation secured appointment, on examination, as resident

physician in the Wilkes-Barre City Hospital. It was while attached, as stated, that he purchased with the late Joseph C. Powell, the Wilkes-Barre Record, then an old established newspaper, and then, as since, a power for good in the community and in the newspaper world. At the time he became a joint owner the paper had been faring precariously, and Dr. Johnson, with an enthusiasm born of his newspaper instinct, threw himself into the task of laying the foundation for a daily of larger scope and influence. To this great work he gave the best years of his life, the best intelligence of his mind, and the best idealism of his nature. And yet in the midst of such engrossing effort he found time to contribute a remarkable share in the general uplift work of the community."

Dr. Johnson's interest in the Wyoming Historical and Geological Society was not an impulse but a continual activity and an inspiration to others for over forty years. He was elected a member in 1872; a Life member 1907; Librarian 1874, 1875, 1876; Assistant Librarian 1879, 1880, 1890, 1891, 1893; Treasurer annually from 1896 to 1906, and when he was prevented by ill-health from performing the duties of this office he was elected Historiographer, 1907, continuing in that office until his death in 1913. It was his earnest request that he might remain an officer of the Society for the rest of his life, a request which was very gladly gratified by the Society.

"His association with general enterprises outside his routine reveal a man of large public impulse and one whose high intelligence and capacity in achievement made him for years a prominent, and, in certain respects, a dominating personality. He served on the committee appointed by the State Board of Public Charities to inspect the public institutions of Luzerne county. He was for a time one of the prison commissioners of the county. He outlined in an exhaustive paper, read before the Luzerne County Medical Society, the projected enterprise of the free sanitarium for tuberculosis at White Haven, and his paper was used before the Pennsylvania Legislature when the question of the initial State appropriation was debated. Dr. Johnson was Treasurer of the Wyoming Commemorative Association and always an active worker; member of the Moravian Historical Society; Minesink Valley Historical Society; Pennsylvania Society Sons of the Revolution; New England

Society; Pennsylvania Society; Westmoreland, Country, Franklin, Automobile and Camera Clubs; American Medical Association; State and County Medical Societies; Society for Prevention of Tuberculosis; Wilkes-Barre Chamber of Commerce; State and National Editorial Associations; Pennsylvania Forestry Association; Civil Service Reform Association; Young Men's Christian Association (and Director); Masonic Order, including Royal Arch Masons, Knights Templar and Nobles of the Mystic Shrine.

"So vast a field of usefulness connects a man whose largest impulses were industry and altruism. The former a natural trait and continually manifested, and the latter largely unfolded through a heart of deep sympathies and through the practical working out of his religious convictions. In an age when the relationship of men and religion is like to be somewhat perfunctory, Dr. Johnson's religious zeal was manifested with an ever increasing consistency. Beautiful impulses working from within, were shown in his undertaking a heavy burden of duty, and yet he was a man upon whom these burdens sat lightly. For duty became to him not negation but affirmation, not a shunned and dreaded call, but a keen delight. Immediately after the organization of the Wilkes-Barre Young Men's Christian Association he became an active worker. With one other he initiated and brought to initial success the boys' department, since grown to a separate plant and organization allied with the older branch. He assisted in the formation of suburban Young Men's Christian Associations. His work as Y. M. C. A. Director was for many years a vital influence. His church affiliation bears the same stamp of sincerity and constant usefulness. He was baptized at nineteen in St. Stephen's Church, Wilkes-Barre, May 2, 1872, and confirmed by the Right Reverend M. A. D'W. Howe, D. D., Bishop of Central Pennsylvania, May 5, 1872. His church activity was unbroken through forty years, until his death. A short service as Vestryman in St. Stephen's was interrupted by his medical study in Philadelphia. He was in later years re-elected, 1903-1913, serving continuously for ten years before his death. He also represented St. Stephen's Parish in the annual conventions of the Diocese from 1895 to 1911. He was one of the pioneer workers in Calvary Chapel, a mission of St. Stephen's, and he lived to see the commodious church, parish house and rectory become the property of the congregation.

Religion meant to him a vital daily force in life's experiences. It meant generosity, sympathy, helpfulness, charity in gifts and in judgments. It meant a high-minded ambition in the newspaper career. He of all men was the last to recognize in himself any merit. His faithfulness to church and public and domestic relations was something natural and inevitable. His spirit was clothed in humility. In business connected with the Record newspaper he was a master of detail. He was, perhaps, the best all round chronicler of events the city of Wilkes-Barre has ever had. He was a paragon of correct statement and generous marshaling of fact. And beyond this, he preserved in himself and cultivated and encouraged in others the duty of presenting news correctly, thoroughly and without offense to the better taste of the community. He wrought so well that the tradition of his personal work and example is still a potent force. When his paper pursuaded, modified, or moulded public opinion, it did so with the trend always toward the honorable, the moral, and the right. During his active work its circulation was increased five-fold. And it is safe to say that in this achievement he was the most considerable factor."

Dr. Johnson married at Oshkosh, Wisconsin, June 15, 1885, Georgia Post, daughter of Joseph H. and Harriet (Green) Post, of Knoxville, Tennessee, and they had: Mrs. Ruth (Johnson) Morgan, Frederick Greene (Cornell University, 1913), and Margaret, all of whom survive.

The foregoing admirable sketch of Dr. Johnson, from the pen of Wesley E. Woodruff, Esq., should be read in connection with the "Appreciation" of our late Treasurer, which appeared in the Wilkes-Barre Record, March 12, 1913, from the same pen. Dr. Johnson was an untiring writer, as the following bibliography shows. His "Wyoming Historical Record," full of the historical papers published by him in the Record from 1886 to 1908, is rich in local history and fascinating to the reader. It covers fourteen volumes, the entire edition of which he gave to the Society, to be sold for the purpose of creating a Rev. Jacob Johnson Fund of $1,000, in memory of his ancestor, the founder and for twenty years the pastor of the First Presbyterian Church, Wilkes-Barre. This Fund for general purposes is now over five hundred dollars.

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The Historical Record of Wyoming Valley. A compilation of matters of Local History from the columns of the Wilkes-Barre Record. Edited by Dr. Johnson. 1888-1903. Vols. 14, eight volumes quarto, and six octavo. Rich in Wyoming history and all indexed. Wilkes-Barre. 1888-1903.

Wallingford (Connecticut) Johnsons, by Frederick C. Johnson, M. D., of Wilkes-Barre, Penn'a. Published in the New England Historical and Genealogical Register, October, 1901, and reprinted in a four-page pamphlet, 1901.

Rev. Jacob Johnson, of Wallingford (Conn.) and Wilkes-Barre (Penn'a), by F. C. Johnson, M. D. Wilkes-Barre. 8vo., pp. 32. 1901.

The Johnson Family. Published in Hayden's Genealogical and Family History of Wyoming Valley, Penn'a. pp. 61-69. 1906.

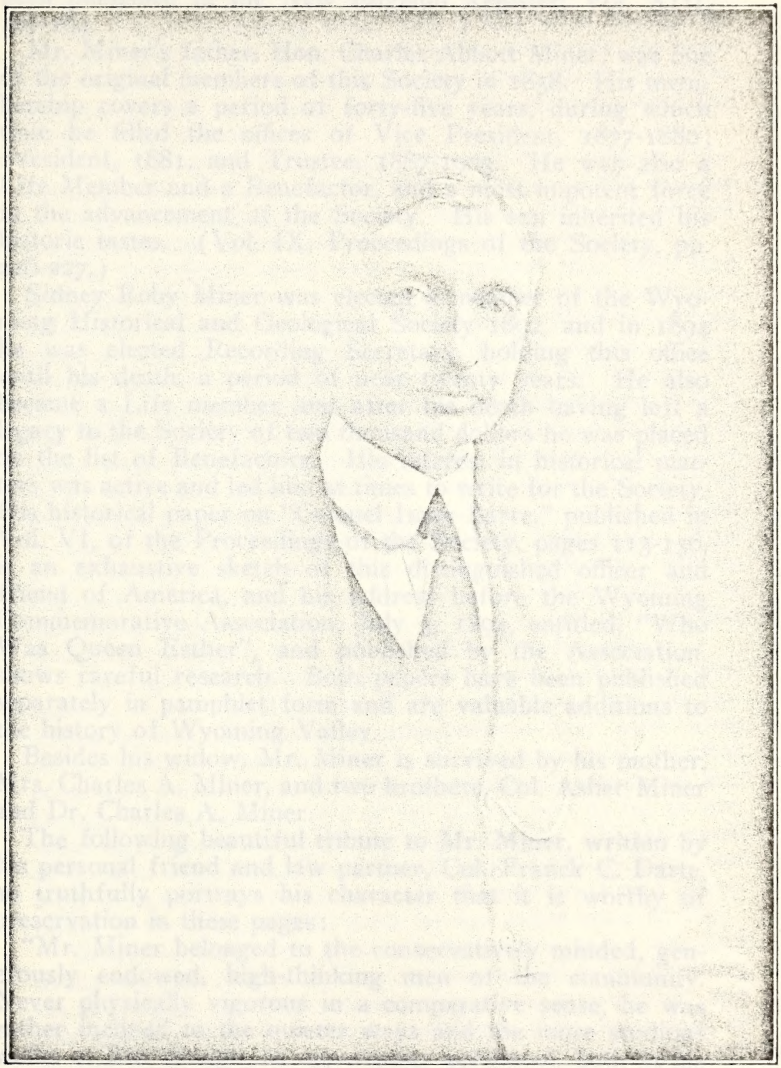
Death and Contagious Diseases, Vital Statistics of Wilkes-Barre for a number of years in Transactions of the Luzerne County Medical Society from 1900 to 1913.

SIDNEY ROBY MINER.

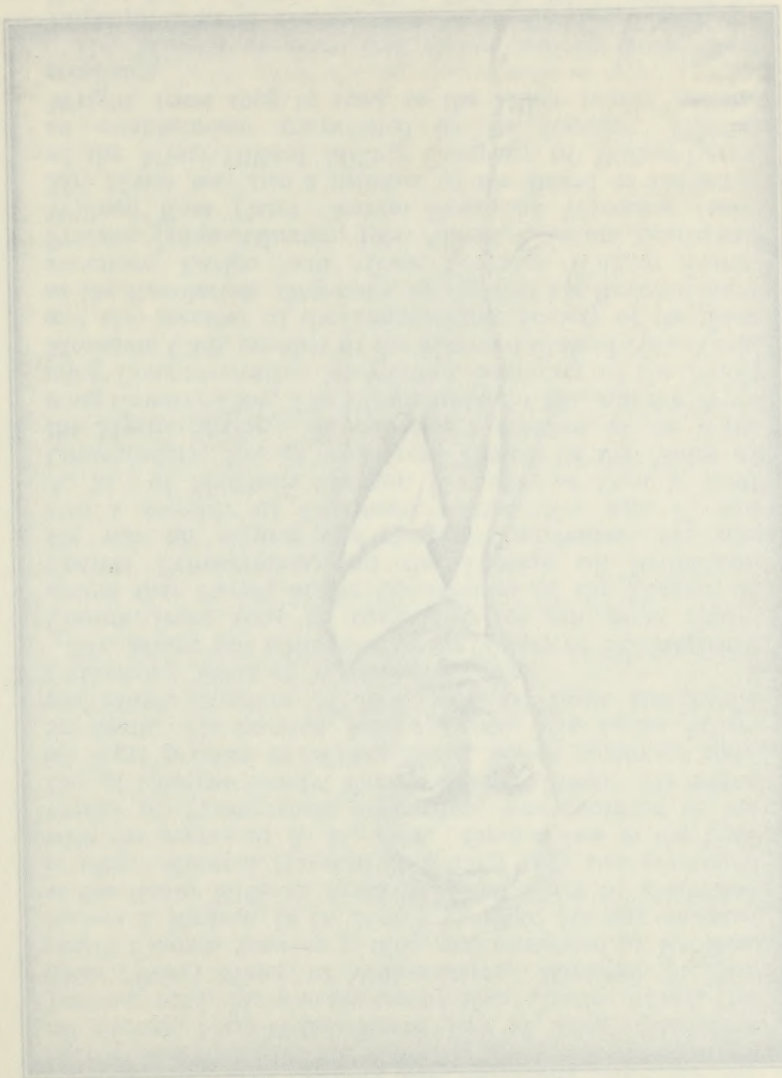
Benefactor, Life Member and Recording Secretary for nearly twenty years of the Wyoming Historical and Geological Society, born Wilkes-Barre, July 28, 1864; died there June 14, 1913. He was the son of Hon. Charles Abbott and Eliza (Ross) Miner, of Wilkes-Barre. Baptized, St. Stephen's Church, January 3, 1869, and confirmed by Rt. Rev. Nelson S. Rulison, D. D., March 30, 1890. He was educated at the Harry Hillman Academy, from which he graduated in 1885. Entered Harvard University 1885 and graduated with the degree of A. B., 1888. Studied law in the University of Pennsylvania 1889-1890; was admitted to the Bar of Luzerne county, Penn'a, June 16, 1890. He began his legal practice in Wilkes-Barre, which continued until his death. He married, June 25, 1909, Miss Lydia Atherton Stites, daughter of Rev. Winfield Scott and Lydia (Atherton) Stites of Wyoming, Penn'a.

Mr. Miner was a member of the Vestry of St. Stephen's Church from 1904 to 1913, and for ten years represented that Parish in the Conventions of the Diocese of Central Pennsylvania and the Diocese of Bethlehem. He was an earnest and devout Churchman. He was also a member of Landmark Lodge, No. 442, F. and A. M.; of Shekinah Chapter, No. 182; of Dieu le Veut Commandery, No. 45, and Irem Temple of the Order of the Mystic Shrine. He was also a member of the Wyoming Country Club, The Westmoreland Club, and the Wyoming Commemorative Association, Secretary of the North Mountain Club, member of the Harvard Club of New York, and also member of the Pennsylvania Society of the Sons of the Revolution, 1893-1913, by right of his Revolutionary ancestors, Ensign Seth Miner, Sergeant William Searle, Privates James Atherton, John Abbott, Constant Searle and William Ross (later General Ross) of Wyoming fame. Mr. Miner was also a member of the Board of Directors of the Miner-Hillard Milling Company of Wilkes-Barre, an establishment transmitted by its founder, Thomas Wright, from 1795 to 1914, to the Miner family, his descendants.

Mr. Miner's ancestry was almost entirely from New England settlers, among them were Thomas Miner, of Pequot fame, Captain in King Philip's War, 1665; John



SIDNEY ROBY MINER



Ross, of Ipswich, 1635; George Abbott of Andover, 1635, and many others. The family history for many years has been published in the New England Register, Vol. XIII, 161-164.

Mr. Miner's father, Hon. Charles Abbott Miner, was one of the original members of this Society in 1858. His membership covers a period of forty-five years, during which time he filled the offices of Vice President, 1877-1880; President, 1881, and Trustee, 1887-1903. He was also a Life Member and a Benefactor, and a most impotent force in the advancement of the Society. His son inherited his historic tastes. (Vol. IX, Proceedings of the Society, pp. 226-227.)

Sidney Roby Miner was elected a member of the Wyoming Historical and Geological Society 1892, and in 1894 he was elected Recording Secretary, holding this office until his death, a period of near twenty years. He also became a Life member and after his death having left a legacy to the Society of two thousand dollars he was placed on the list of Benefactors. His interest in historical matters was active and led him at times to write for the Society. His historical paper on "Colonel Isaac Barre," published in Vol. VI, of the Proceedings of the Society, pages 113-136, is an exhaustive sketch of this distinguished officer and friend of America, and his address before the Wyoming Commemorative Association, July 3, 1894, entitled, "Who Was Queen Esther", and published by the Association, shows careful research. Both papers have been published separately in pamphlet form and are valuable additions to the history of Wyoming Valley.

Besides his widow, Mr. Miner is survived by his mother, Mrs. Charles A. Miner, and two brothers, Col. Asher Miner and Dr. Charles A. Miner.

The following beautiful tribute to Mr. Miner, written by his personal friend and law partner, Col. Franck C. Darte, so truthfully portrays his character that it is worthy of preservation in these pages:

"Mr. Miner belonged to the conservatively minded, generously endowed, high-thinking men of the community. Never physically vigorous in a comparative sense, he was rather inclined to the quieter ways and the more studious walks of life, though, as opportunity presented, both in his own way, and in his attitude otherwise, he showed a large

sympathy with those diversions which in one guise or another bring people into the free communion with nature in her visible forms. He was one of the charter members of the North Mountain Club, and it had been among his chiefest delights for years to enjoy the winter or the summer rambles in this mountain region where giant old trees, dashing brooks and deep mountain chasms refreshed the spirit of the visitor.

"Even before his college days, through his course at Harvard, and in after life, he has shown delight in the reading of solid books and his mind was familiar with and exulted sympathetically in the great thoughts of great men.

"His friendships were wide in scope and they were rare in quality and this was very largely because he himself was a friend—constant, loyal and thoughtful. Many instances there are that it were possible to quote, that showed a keen sympathetic interest both in the joys and the sorrows of those he numbered as intimates and acquaintances. And this was always of comfort to those who had learned in many ways that his loyalty was a part of himself and always to be depended upon. He was among those rare natures that added to friendships riches, and that never lost friends —for he had the enduring qualities that held them. This is not to say that he was without strong opinions. But he engaged in argument rather for the sake of the truth to be developed than for mere argument's sake, and he respected the views of others, even when holding fast his own.

"The high intellectual appeal, the appeal of duty, of conscience, of the development of the wholesome and the uplifting in individual and in community—these were some of the indices of his character. He was a valuable member of several social, fraternal and charitable organizations and though his enthusiasm was of the quieter sort as far as outward signs go, it was enduring and constant. He had much to do with organizing the Harvard men of this vicinity, and more generally, in varied interests, his services found recognition in the many official parts he was called upon to play.

"Moreover there was great wholesomeness and a fine fibre in his personal relations. He could be ranked as instinctively on the right, the high-minded side of a proposition, and this characteristic is perhaps growing a little more rare in an age when there are so many vagaries as to thought and action among even reasonable men. As indicated, he had

come to large sympathy and to considerable participation in several of the prominent avenues of good in the community.

"To these high qualities, as a citizen and a man, Mr. Miner added an integrity and symmetry of character in his profession that was universally recognized. The thing never seemed, in choosing between the worthy and the opposite, to be a matter of turning aside temptation. With such as he there never seemed to be any temptation. What seeemed to him right had become as facile as second nature.

"In his death, which considering years and averages, is untimely, and marked with some particularly sad features, the whole community will recognize the loss of a cultivated, loyal, high-minded citizen, lawyer, churchman and friend. He had many of the most excellent traits of a distinguished ancestry, and there will be widespread regret that he could not have been spared for many years of illuminating, personal example, and of valued service in the many places that had known and profited by his interest, activity and companionship."

MEMBERS DECEASED SINCE ISSUE OF VOLUME XII.

LIFE.

Dr. Frederick Charles Johnson, died March 5, 1913.
Benjamin Reynolds, died April 4, 1913.
Woodward Leavenworth, died May 26, 1913.
Sidney Roby Miner, died June 14, 1913.
Addison Alexander Sterling, died October 5, 1913.

ANNUAL.

Miss Augusta Hoyt, died May 3, 1913.
Mrs. Ellen Elizabeth (Miner) Thomas, died March 25, 1913.
Dr. Alexander Gray Fell, died May 1, 1913.

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†The payment of one hundred dollars at one time by a member not in arrears, shall constitute him a life member, with an exemption from all future payments.

"All moneys received on account of life membership, shall be securely invested by the Trustees in the name of the Society, and shall form a fund to be called "The Life Membership Fund', the interest only of which shall be available for the uses of the Society.

‡"Any person contributing to the Society at one time a fund of one thousand dollars or more shall be placed on the list of Life Members with the title of 'Benefactor'. The Life Membership list shall be published annually."

The full list of members was published lately in the pamphlet History of the Society.

The life member is entitled to all the publications and privileges of the Society, free, and by the payment of his fee establishes a permanent memorial of his name which never expires, but always bears interest for the benefit of the Society. His is therefore always a *living* membership.

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